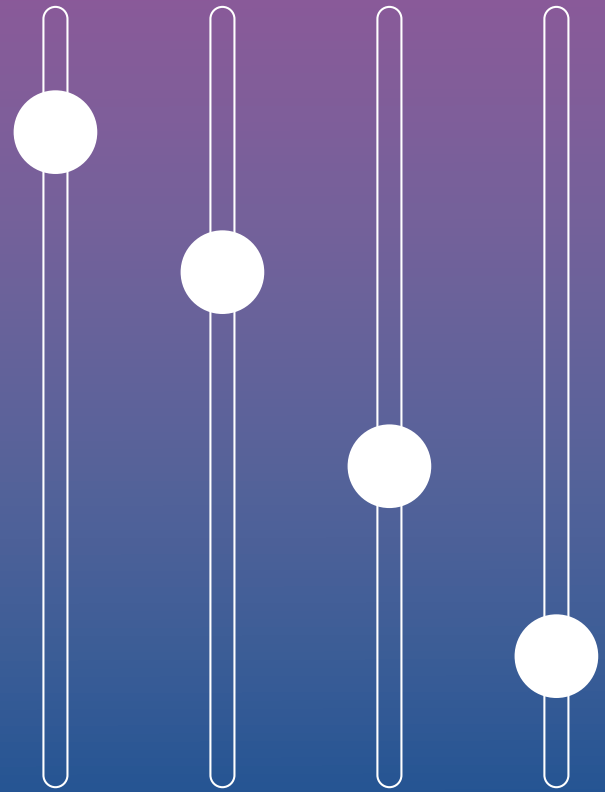# TIMBALAND'S
MASTERCLASS

01

introduction

TIMBALAND
Introduction

TERMS TO KNOW

Bounce: Tim uses the term "bounce" to describe the element within a track that makes the listener want to move or dance. (Note: In audio production, the term "bounce" is also used to describe a fully produced track with all effects included.)

Chorus: An effect that simulates the sound of multiple instruments by replaying the track a few milliseconds behind the original.

Since the early 1990s, Timbaland has been one of popular music's most successful producers. He's produced for Missy Elliott, Aaliyah, Justin Timberlake, Madonna, Nelly Furtado, Jay-Z, Rihanna, One Republic, Kanye West, and Beyoncé, and he's also stretched his boundaries to work with artists like Chris Cornell, Björk, and Brad Paisley.

The role of a music producer doesn't have one fixed definition. Some producers act almost like recording engineers: they're focused on microphone placement, room ambience, and other minutiae of the recording studio. Some act more like film directors, by shaping song arrangements and artist performances to maximize their potential. Finally, some producers are essentially composers: they create the backing tracks that a vocalist will sing over. The meaning of the word "producer" really depends on the particular artist.

In this MasterClass, you learn how the word "producer" applies in Timbaland's world. The class will teach you about collaboration, utilizing technology, working with samples and loops, fine-tuning drum sounds, directing vocalists, and overseeing the entire vision for a piece of recorded music.

Team Timbo

Timbaland isn't a one-man show. His co-producers, Fede Vindever and Angel Lopez, and his audio engineer, Chris Godbey enable him to quickly transform sketches and improvisations into fully realized songs. Throughout his career, Tim has made his name as a master collaborator, working equally well with world-famous and undiscovered partners. Whether he's working out a beat with Jay-Z or Missy Elliott, or using a chord progression from a new artist, Tim embraces dialogue, respect, and a shared love of music to produce the most compelling sounds possible.

Compression: An effect that locks in volume parameters so that a certain instrument is never too loud or too quiet. If you want an instrument to be heard at a consistent level throughout the song, use compression. In house and EDM music, drums are almost always compressed. Compressing guitar will create a funky sound (think of the guitar solo on Michael Jackson's "Billie Jean"). Compressing vocals will make them sound more powerful, but there will be less distinction between the soft and loud parts of the performance. Compressing an overall track will keep it strong from start to finish. However, if you want major differences between loud and quiet sections, use little to no compression.

Echo: An effect that literally echoes the audio track at a rate set by the user.

EQ: Shorthand for "equalization," which involves isolating certain frequencies within a sound and selectively boosting or lowering them.

Reverb: An effect that mimics the reverberations of a physical space, like a small room or a concert hall.

Production Technique: Start With Your Mouth

Timbaland starts a lot of his tracks by singing beats into a microphone. Right off the bat, this makes him different from a lot of producers, but the results speak for themselves. Finding the perfect sound on your keyboard, or the perfect drum loop in a software library, can derail your creativity. Rather than interrupt his process, Tim grabs a mic and begins improvising parts, from beatboxes to vocal melodies. Chris keeps the loops repeating so that Tim can add on layer after layer. He asks Chris to **pan** his tracks, meaning he wants the tracks to be largely isolated in the left or right speaker. When he calls for a **V-Shape**, that's his way of telling Chris he wants a **hard pan**, where the left and right channels are sharply divided.

This helps create the signature Timbaland style. Many of his songs are built by layering on top of four and eight-bar phrases. Harmonically, the songs often remain the same from start to finish, but instrumentation, texture, and vocal melodies vary with different parts of the song.

A Note on the Tech
Timbaland approaches music production from an emotional, heart-centric place. He doesn't think of his songs in terms of musical theory or software jargon. He's set up a system that allows him to be spontaneous and lets his emotions lead him to musical discoveries. With this in mind, this MasterClass isn't designed as an introduction to music composition or production

software. Students who don't already know the basics of recording and mixing music on a personal computer are encouraged to take a primer on the topic in order to get the most out of the course. Assignments are designed for students who have access to audio production software and at least a basic understanding of how to use it.

During Tim's early career, he produced tracks using electronic keyboard workstations, like the 1990s-era Ensoniq ASR-10. Today, like most producers, he records and mixes via a personal computer. You'll observe Timbaland and his team collaborating on three networked Apple MacBook Pro notebook computers (for music creation) that have been routed to a single Apple Mac Pro desktop computer for overall audio mixing. They use multiple software applications, but the core creative pieces are Ableton Live and Logic Pro, and they use Avid Pro Tools to mix master audio tracks.

Ableton, Logic, and Pro Tools are all commonly used in the music industry, but they aren't the only programs out there. There are many competing brands with very similar functions. Paid programs like Cubase, Digital Performer, Reason, and FL Studio have similar capabilities. So do some free programs, like Garageband, Cakewalk, and Audacity. (There's also a free, stripped-down version of Ableton called Ableton Lite.) Meanwhile, some producers still swear by analog equipment and continue to record to magnetic tape, which was the industry standard in decades past.

Sidechain compression:
A type of compression where the effect level on one instrument is controlled by the volume level of another instrument. A common example would be making the compression level on a bass controlled by the output volume of the kick drum, so when the kick drum sounds, the bass gets *more* compressed, and the two instruments become even more intertwined.

Tail: The end of a musical note, often extended using reverb or a delay effect.

Topline: The vocal melody of a song. To "topline" means to write a vocal over a pre-made beat.

If you're specifically interested in learning Ableton, which Tim and Angel use throughout this course, Beat Academy offers a thorough crash course for people new to the program. There is also a multipart video series offered by Ableton itself. To learn Logic, which Fede uses throughout the course, check out an hourlong intro tutorial by the producer/teacher Tomas George. You can also take a course via Apple, who purchased the software in 2002. As for Pro Tools, which Chris uses as the team's master audio software, peruse individual videos from the program's manufacturer, Avid. You'll learn by experimenting, trying random functions, and not being afraid to make mistakes.

Ultimately music production is an art, and producers become great because of their creative decisions, not because of how much gear they own. The more comfortable you are with the production tools at your disposal, the more mental energy you can use to focus on making the most creative, best-sounding music possible.

Assignment

To produce like Tim, you have to be ready to layer. Using the audio software of your choice, create a four-bar percussion loop with the following elements:

- **Low end** (either sung with your mouth or using a kick-drum sample)

- **Snaps** (either with your fingers or using a software sample)

- **Claps** (make them land on different beats from the snaps)

- **Cymbal sounds** (either sung or by using a hi-hat sample)

No need to add bass, chords, or vocals—those will come later. For now, focus on getting a tight, layered drum sound. No pop hit is complete without one.
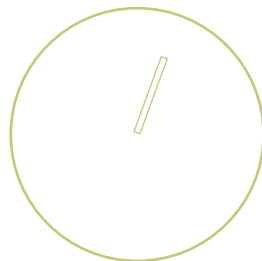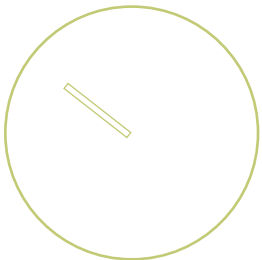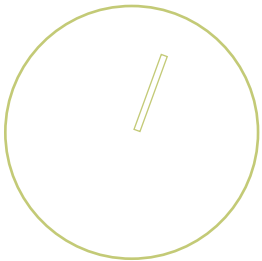
02

studio session: making a beat- box beat
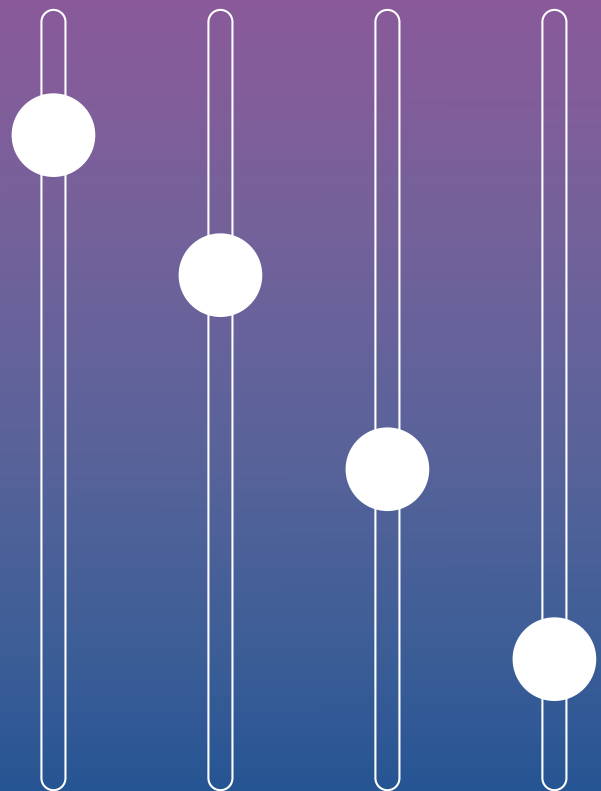
TIMBALAND
Studio Session:
Making a Beatbox Beat

" I found magic when I put the headphones on.

Sometimes a song's production both starts and ends with the producer on the microphone. This song is built around a sung passage by Tim, and at the end of the process, it's topped off with sung melodies from Tim. On a Timbaland production, the vocal beatbox doesn't always make it all the way to the final mix. Still, it provides a guiding template for much of the production process.

Once the beat is established, Angel and Fede go to work adding bass, chords, and various texture to the track. Then Tim gets back on the mic and improvises a vocal melody. The free associations coming out of his mouth are both what start off this track and provides the finishing touches that resonate most with the listener.

Thanks to the miracle of **Auto-Tune**, you don't even need to be a great singer to improvise melodies on the mic. (Just be sure you know what key you're in, so you can set the Auto-Tune.) The industry standard for Auto-Tune is a plug-in made by Antares Audio Technologies. However, most audio production software has its own version of Auto-Tune built in, and there are free plug-ins (of varying quality) available online.

Tim doesn't primarily think of himself as a songwriter, although in the world of contemporary pop, most producers are at least partial songwriters. They provide the texture and groove for other **topliners** to add vocal melody and lyrics. On a lot of Timbaland productions, Tim moonlights as a "feature," meaning he'll be featured as a vocalist on a small section of the song. He'll leave the rest of the vocal performance, and topline songwriting, to his collaborators.

Production Technique: Start With A Beat

Starting with a beat, rather than a chord progression, gives you lots of options when you start adding a vocal melody and harmonic texture. Angel takes advantage of this when he adds a bassline using Massive by Native Instruments, a popular synthesizer for heavy dance-pop bass. The chords and texture come later, and Tim's **topline** comes last.

> "
>
> # We're a band. With laptops instead of instruments.
> *—Fede*

Dive Deeper: Building Texture Using Effects

Angel and Fede are responsible for most of the chordal harmony and texture on this track, and they create a lot of this using third party plug-ins and their programs' built-in effects.

Angel contributes an ethereal vocal sample, which he alters using the Kickstart sidechain, some EQ tweaking, and a Tantra plug-in, which can offer all sorts of effects: filter, delay, distortion, and flanger to name just a few.

Meanwhile, Fede is working with a guitar sample and running it through a multi-effects plug-in called Effectrix by Sugar Bytes. This plug-in offers all the "usual suspects" of effects—reverb, delay, chorus, and more—but Fede is also using its "vinyl" effect, which simulates a DJ scratching/dragging a vinyl record. He also has his own vocal sample for Tim's consideration, and he's using a reverse effect to play it backwards. (Note: Most delay plug-ins or built-in effects will offer a "reverse" feature.)

All the Team Timbo producers are fond of compression, which is perhaps the most common effect in pop production. **Sidechain compression** is particularly popular in dance pop because it allows instruments to cut through a mix at all times. When other instruments in a mix get louder, the sidechain effect increases so that the track it's on will never be drowned out.

Assignment

Build a track in the same order that Team Timbo does in this lesson. The steps are as follows:

1. Record a beat by singing into a microphone. (Use a metronome to stay in tempo.)

2. Add a bassline and perhaps some electronic drums to compliment your vocal percussion.

3. Add chords, ideally using a MIDI keyboard.

4. Add texture, using samples that you manipulate with built-in effects and plug-ins.

5. Pick up the mic once again, and improvise melodies until you find one that sticks.

6. (Optional) If you're feeling inspired, add real lyrics, based around the feeling that the instrumental tracks inspire.

If you make it all the way through Step 6, you have a fully composed song on your hands.
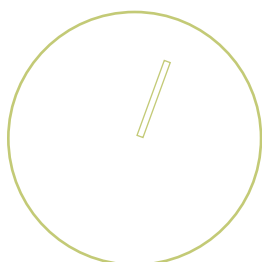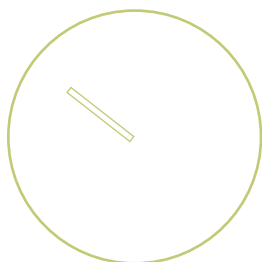
03
building beats:
tim's process
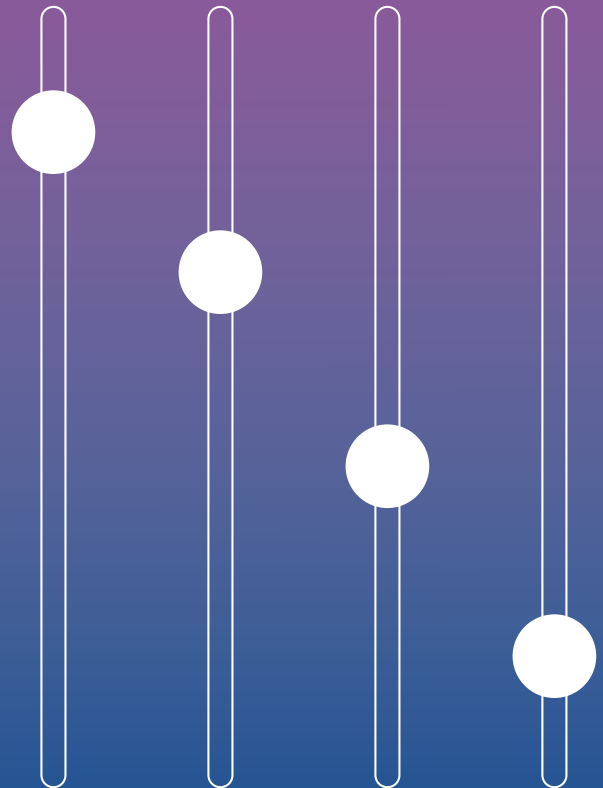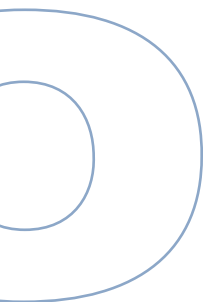
TIMBALAND
# Building Beats:
Tim's Process

> " By not knowing what's up here, it makes me more creative.

Timbaland uses Ableton Live software, a popular program for dance, pop, and hip-hop producers who use prerecorded samples. The second tool he uses is an Ableton device called Push, which controls the software using light-up pads.

Tim creates drum racks on his Push—in other words, he assigns drum sounds to each one of the pads. When he presses one pad, you hear the sound of a kick drum, and when he presses the pad next to it, you hear the sound of a hi-hat. He creates custom drum racks by placing the drums in any order he wants—he's intentionally random about it. The element of surprise pushes him creatively, so that he produces sounds that are fresh and unpredictable.
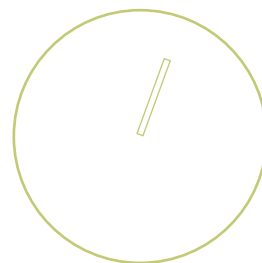
A huge part of Tim's style is to create sounds you won't hear from any other producer. So he'll chop up the samples he finds (using the "slice" mode in the Ableton program), or he'll use programmed presets that speed up

and slow down playback. With both his samples and his drum sound selection, Tim makes spontaneous choices while browsing through Ableton's libraries. You might say that part of his plan is to not overplan.

One more way Tim uses Push is to build loops. In this lesson, he starts with a two-bar drum beat anchored around a kick and a snare. Then, he lengthens it and layers additional drum elements on top of the original. He tops it off with a horn sample that he found in an Ableton library and has altered with a few effects. This track will become a template for a new track he can start building with his collaborators.

Dive Deeper

Most of the drum samples used on Ableton or similar programs are based off recordings of actual acoustic drums. Here is a diagram of a standard drum kit, with the names and sounds of each component. (See page 12)

> ❝

I like the element of surprise.

Hip-hop and dance production also draws heavily on acoustic hand drums, most of which originate in African or Afro-Caribbean culture. Here are a few of the most common pieces. (See following page.)

Assignment

Listen to the audio samples of each individual drum and/or cymbal (available here). Now listen to the following songs, and see if you can identify which of these drums are prominently featured in the recordings.

Lionel Richie, "All Night Long (All Night)" (1983) - This song mixes hand percussion with a traditional drum kit. Listen for, and identify, both types of drums.

Beyoncé, "Formation" (2016) - This song emphasizes deliberately synthetic-sounding drums. Which acoustic drums are they emulating?

The Who, "The Real Me" (1973) - The percussion on this high-energy song is played exclusively on a drum kit. Which pieces of the kit are emphasized?

Once your listening is complete, try creating a drum loop using Tim's "random" method. Rather than use a predictable kick/snare/hi-hat combo, see if you can create a similar groove using totally different sounds. If you know how to assign individual drums to individual keys on a MIDI keyboard (or to individual pads on an Ableton Push), do so. Or if you're just dealing with preloaded sounds on a keyboard, play a beat on the keys, but let your fingers land randomly. Allow this random approach to lead you to some unique sounds.
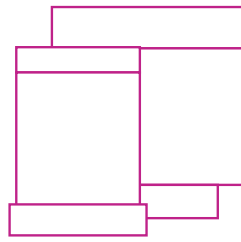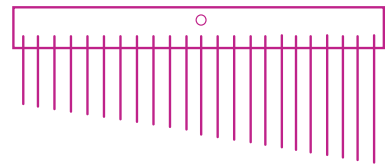
STANDARD DRUM KIT

RIDE CYMBAL

TOM-TOMS

CRASH CYMBAL

SNARE DRUM
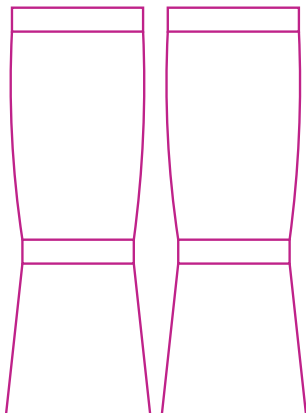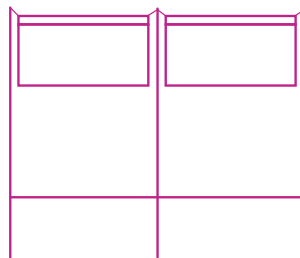
HI-HAT CYMBAL

FLOOR TOM

BASS DRUM
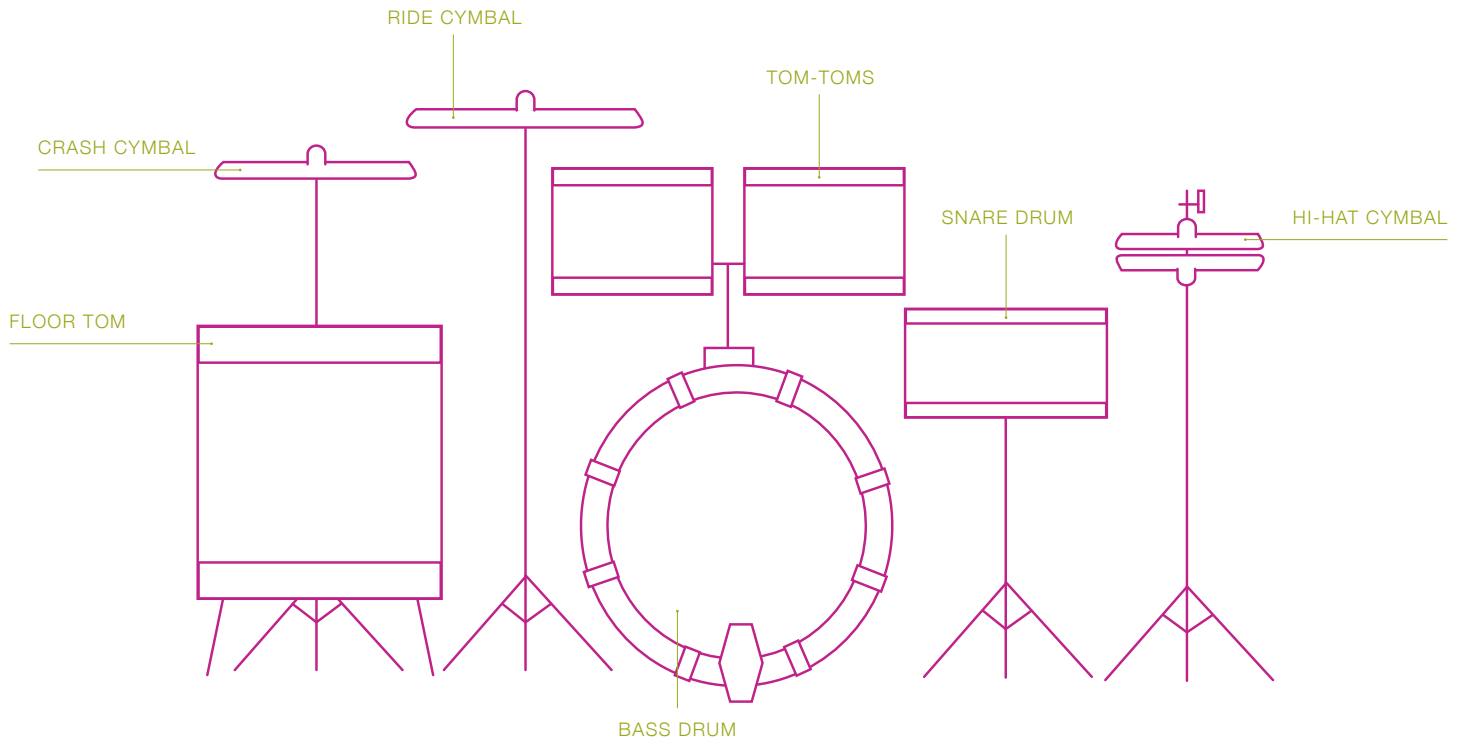
ACOUSTIC INSTRUMENTS
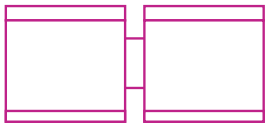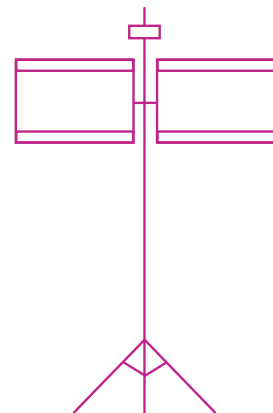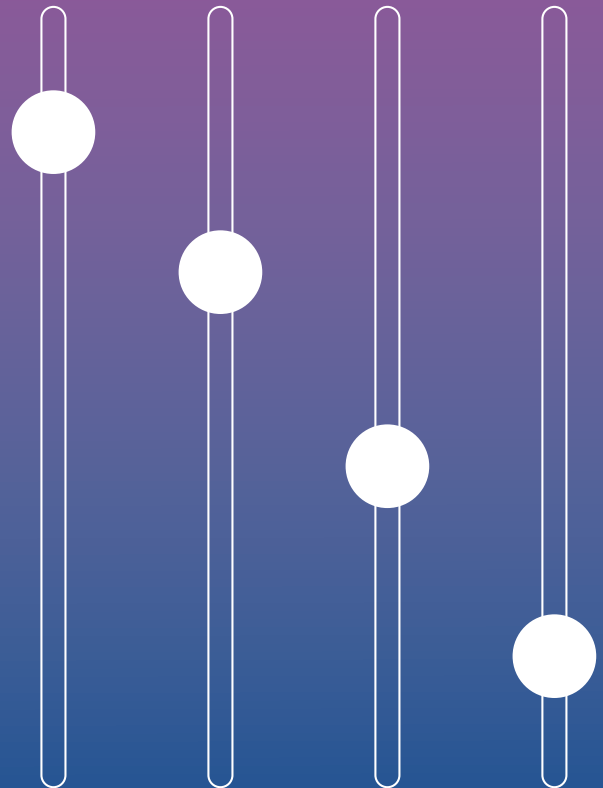
BONGOS
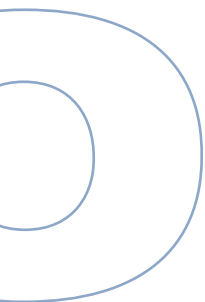
TABLAS

WIND CHIMES

CONGAS

STEEL DRUMS

TIMBALES

04

making a beat: getting warmed up

TIMBALAND
Making a Beat:
Getting Warmed Up

> " There's no right or wrong way to communicating and sharing. It's just: Do they have the same love as you?

The members of Team Timbo work together on a quartet of networked computers, sharing audio files and sequences. They share individual files using Apple's AirDrop feature, but for actual audio production, they utilize the studio's internal network to route audio to a master computer operated by Tim's engineer Chris. (See following page.)

In this chapter's collaboration, the team builds a track around a sample manipulated by Fede. The initial sample is labeled as a bell, but Fede's production causes the sound to warble a bit, making the final product sound a bit like a steel drum. This prompts Timbaland to imagine being on a beach.

As a producer, it's important to find musical inspiration in all aspects of daily life. Tim hears rhythmic patterns in ocean waves, garbage disposals, trash cans rattling, and rakes scraping. See if you can do the same in your own life.
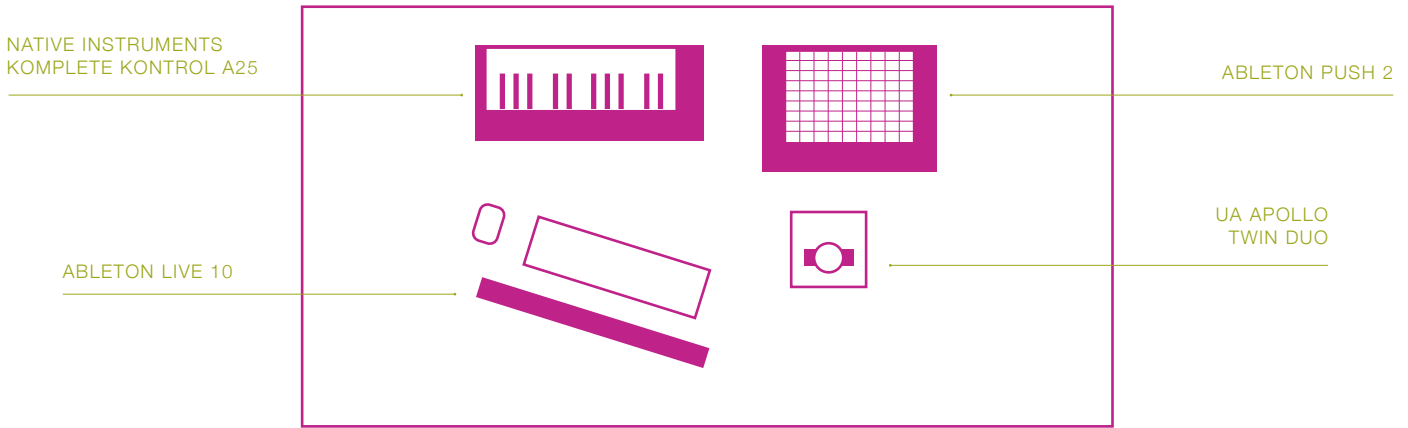
Dive Deeper

Timbaland cites the following songs as personal highlights for sonic innovation.

Jay-Z, "Dirt Off Your Shoulder" (2003) - This Timbaland-produced track appears on *The Black Album*, a record that many fans and critics consider to be the high point of Jay-Z's career. (For more on this track, see Chapter 4.)
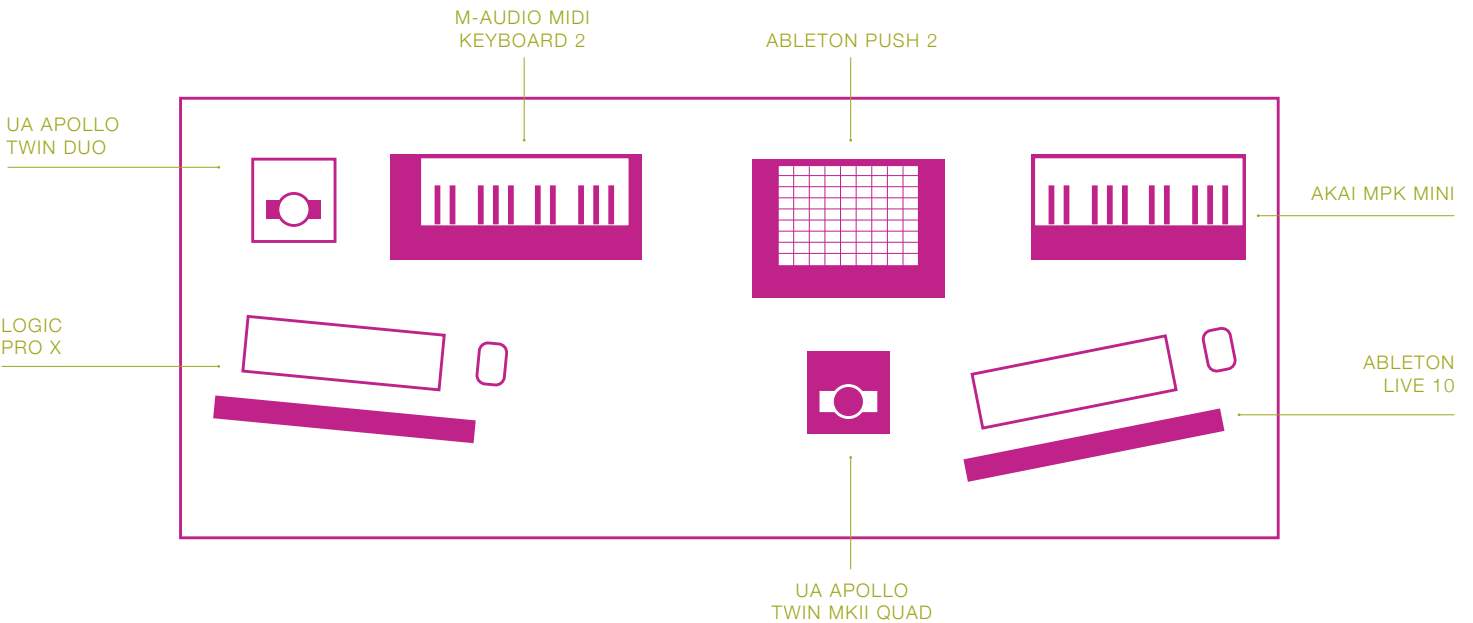
Aaliyah, "Are You That Somebody?" (1998) - This song, performed by the late Aaliyah, is one of Timbaland's most critically acclaimed. *Rolling Stone* called it "one of '90s' R&B's most astounding moments." (For more on this track, see Chapter 10.)

Justin Timberlake (feat. T.I.), "My Love"(2006) - A highlight off of Justin Timberlake's *FutureSex/LoveSounds* record, the vast majority of which was produced by Timbaland.
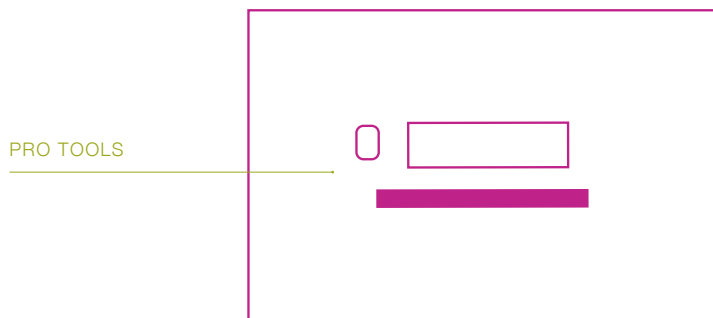
TIM'S EQUIPMENT

NATIVE INSTRUMENTS
KOMPLETE KONTROL A25

ABLETON PUSH 2

UA APOLLO
TWIN DUO

ABLETON LIVE 10

FEDE'S EQUIPMENT

ANGEL'S EQUIPMENT

M-AUDIO MIDI
KEYBOARD 2

ABLETON PUSH 2

UA APOLLO
TWIN DUO

AKAI MPK MINI

LOGIC
PRO X

ABLETON
LIVE 10

UA APOLLO
TWIN MKII QUAD

CHRIS'S EQUIPMENT

PRO TOOLS

05

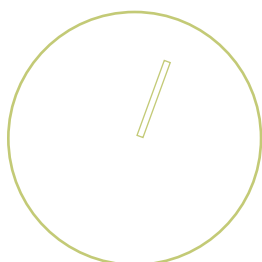## song origins: "dirt off your shoulder"
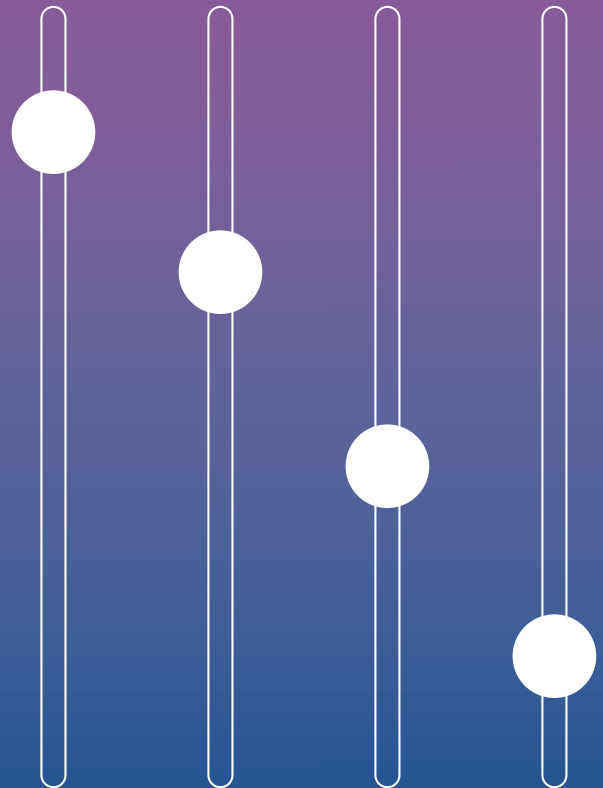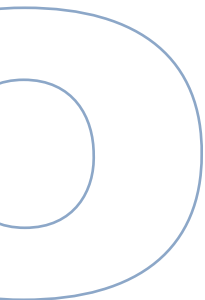
TIMBALAND
Song Origins:
"Dirt Off Your Shoulder"

> "
> 'Dirt Off Your Shoulder' has something about it. I don't know what it is—it is a feeling. And I knew when I did it, it had a certain feeling.

The backing track for Jay-Z's hit "Dirt Off Your Shoulder" was intentionally very minimal. Timbaland built the beat off of three instruments—a synth drum kit (created on his Ensoniq ASR-10), a sped-up bell sample, and what he calls "tape strings."
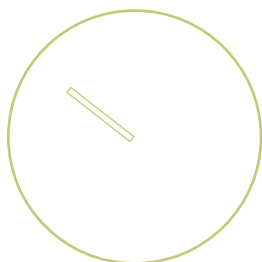
This three-instrument beat was actually Timbaland's second submission for the song. The original beat he offered to Jay-Z went on to be the backing track for "The Potion," by Ludacris.

Dive Deeper:
Early Synthesizers

The crucial element of this song comes from a "tape string" sample Timbaland found in Japan. It was most likely based on an instrument called a mellotron, which is a precursor to a synthesizer. A mellotron has a piano-style keyboard,
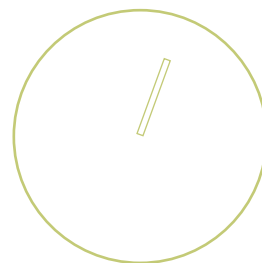
but each key activates a loop of audio tape that plays a recording of another instrument, like a string section or a French horn. You can hear mellotrons on classic rock records like "Strawberry Fields Forever" by The Beatles and "Stairway To Heaven" by Led Zeppelin. The melodic sound on "Dirt Off Your Shoulder" sounds like a harder edged version of a mellotron-string sound.

Dive Deeper:
Watch Fade To Black

Watch *Fade To Black*, a 2004 documentary about Jay-Z. It's set during the period when he was recording and touring off *The Black Album*. The film features many cameos by Jay's collaborators during the early 2000s, including Timbaland. Notice how both artists talk about the process of creating music.

06

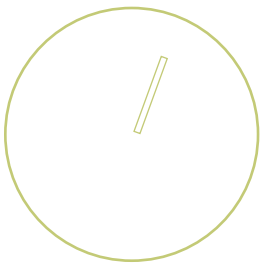## making a beat: starting with a chord progression
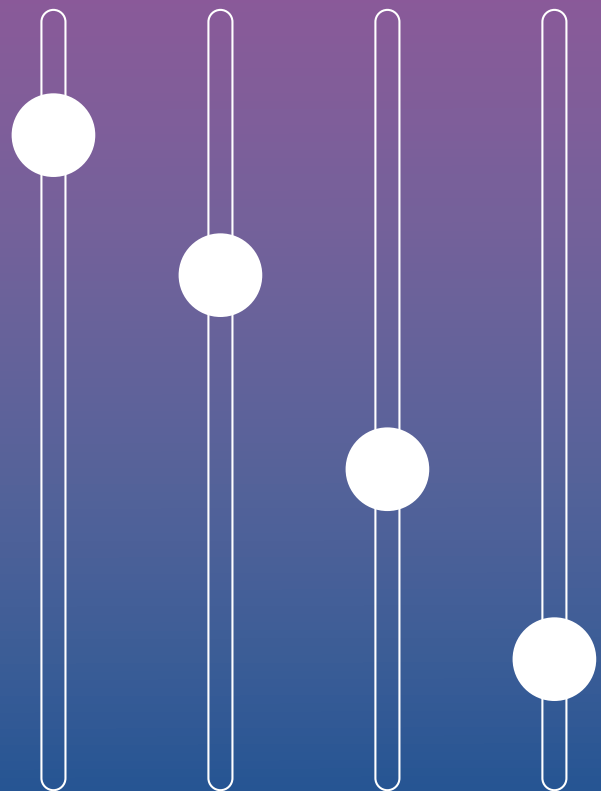
TIMBALAND
# Making a Beat: Starting With a Chord Progression

> " We just go by the feeling… I let it take me where it's gonna take me.

Tim and his team are creating a track based around a chord progression submitted by his collaborator Angel. As with much of Timbaland's music, the secret to the track's catchiness is its simplicity. Angel's progression is a four-bar phrase that loops throughout the track. (See below)
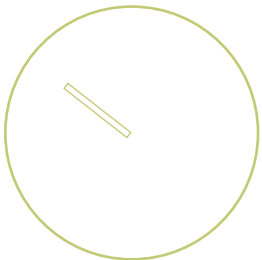
Using numerous audio effects and layering drum patterns atop Angel's loop, the team is able to create a truly memorable track. The cherry on top is an ethereal vocal sample that makes Tim perk up the moment he hears it.
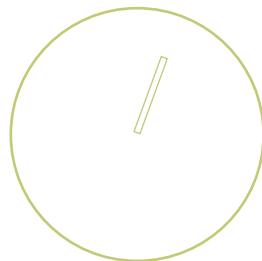
Assignment

Now that you've heard Timbaland and his crew utilize certain audio effects, see if you can hear them in other people's songs. Listen to the following recordings and see if you can discern one or more of the following: reverb, echo, chorus, and compression.

Kanye West, "All of the Lights" (2010) - Pay particular attention to the treatment of the drum tracks.
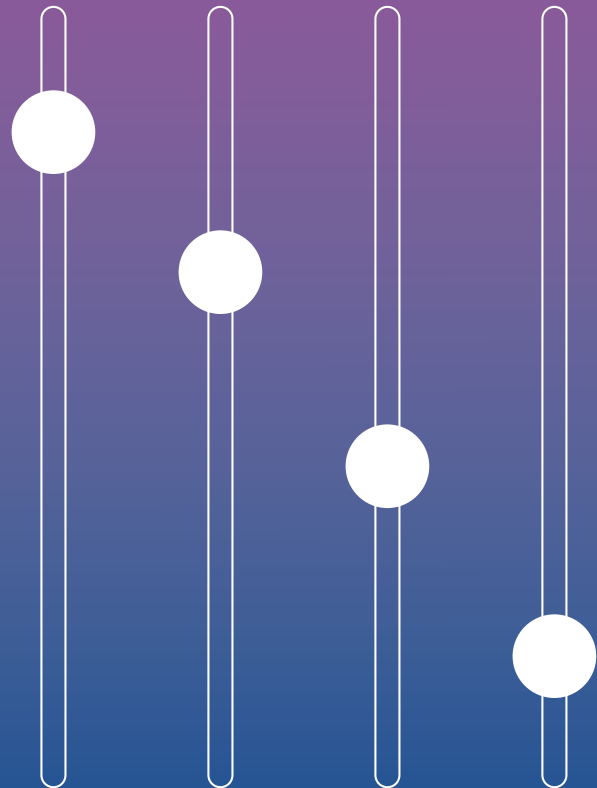
The Police, "Roxanne" (1978) - Listen carefully to all the instruments, especially Andy Summers's guitar.

Walk The Moon, "Shut Up and Dance" (2014) - Listen to all of the instruments. What effects can you pick out on the guitar and keyboards?
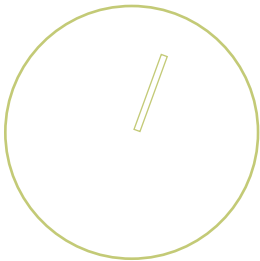
07

making a beat: tweaking and layering drums

07

TIMBALAND
## Making a Beat: Tweaking and Layering Drums

> " Everybody has a different swing.
> That's what makes producers unique.

Tim shows how he manipulates volume and EQ to make the drum sounds he hears in his head reach the listener. Some key elements of his personal style:

- Boost the lower-mid frequencies of kick drum samples and mostly leave snare drum samples alone. The kick provides energy and the snare provides texture.

- Create a mix that sounds great on headphones. Not everyone has a massive hi-fi stereo system, but they do have headphones, whether they're over-the-ear, on-the-ear, or earbuds.

- Record lots of layers at the beginning, but when you start mixing, strip it down to elements that will stand out on their own. Every track should have a purpose in the overall mix.
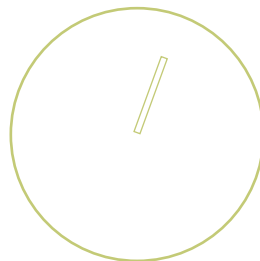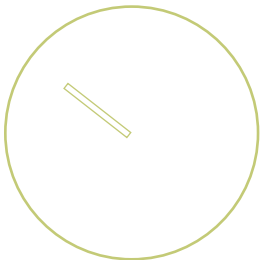
Tim's audio engineer, Chris, then explains his process once he receives sounds from Tim. Compared to other producers Chris has worked with, Tim tends to deliver drums sounds in close to final form. Still, Chris does a few EQ tricks of his own, but he emphasizes that it's easy to overdo it on plug-ins or a program's built-in effects. It's also easy to overdo it on volume and compression. Not every track in a mix can be pumping at 100% the whole time. So if you want to make one instrument louder, consider making another instrument softer in response.

In this demonstration, Chris is using an iZotope Neutron EQ plug-in on the snare drum and a FabFilter Pro-Q, another EQ plug-in, on the kick drum. These plug-ins are valuable for their presets, but all digital audio sequencers (like Ableton, ProTools, Logic, Garageband, etc.) have their own EQ functions built in.

EQ EFFECTS

LOWER MIDS

MIDS

UPPER MIDS

SUPER HIGH

SUPER LOW

20Hz   60Hz   250Hz   500Hz   1kHz   2kHz   4kHz   8kHz   16kHz
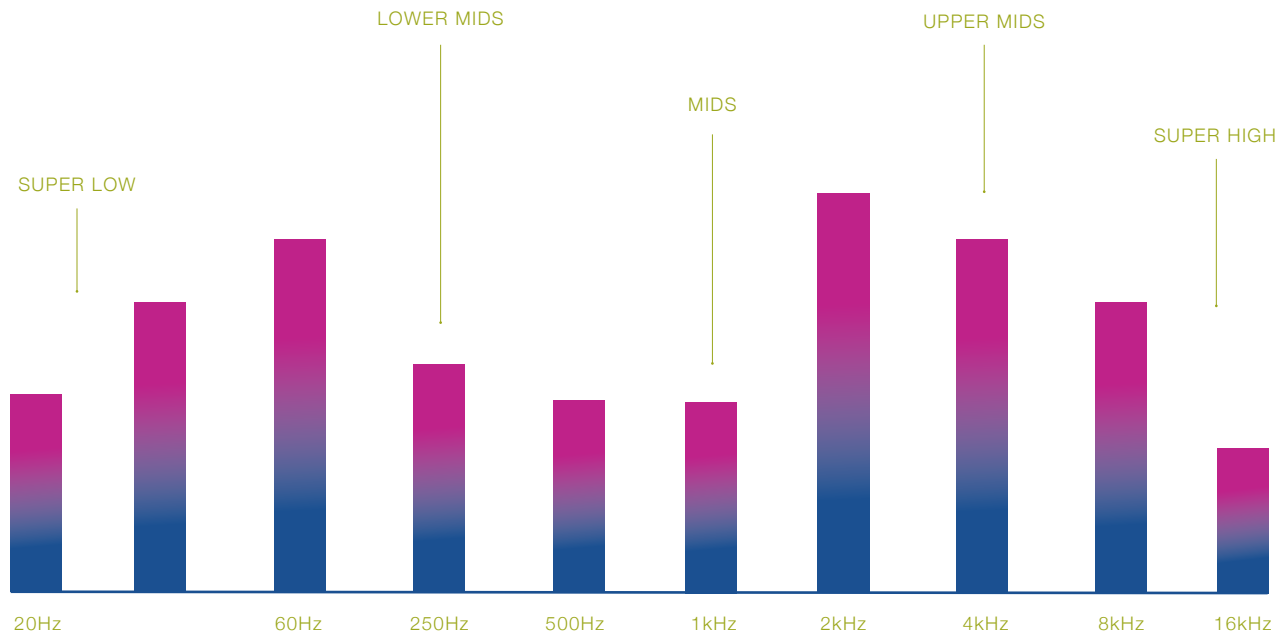
> "
>
> It's super important to not get crazy plug-in heavy before you've struck a good balance.
>
> —*Chris*

**Dive Deeper:
How To Use EQ**

EQ effects boost or lower certain frequencies, which alter the overall sound of an instrument or sample. Here is a rundown of key frequencies. (See figure above)

Super Low (approximately 20Hz to 60 Hz) - These frequencies are the lowest audible sounds humans can hear. In club music, you hear this via bass, sub-bass, or low-pitched drums. Boosting these frequencies can shake a room or a car and they can be heard from far away. That can be a cool effect, but too much boosting will make your mix muddy and undefined. It's hard for our ears to pick out individual notes in super low frequencies, so use this region with

caution. On an amplifier or speaker system, these frequencies would be heard via a **subwoofer**.

Lower Mids (app. 60Hz to 250 Hz) - These frequencies are resonant and pleasing to the human ear. A lot of producers (including Timbaland) boost the lower mids on drums to make them "pop" a bit more. Melodic instruments that fit this range include cello, bassoon, baritone and tenor saxophones, trombone, and the low notes of a guitar. On an amplifier, these frequencies would be controlled with the **bass** knob.

Mids (app. 250Hz to 1500Hz) - These are the frequencies that humans hear the most clearly. As a result, boosting the mids can have almost the same effect as simply boosting the

overall volume. If you want a particular instrument to cut through a mix, boost the mids. But be aware that too much mid-boosting will tire the ear and overwhelm the listener. On an amplifier, these frequencies would be controlled with the **middle** or **mid** knob.

Upper Mids (app. 1500Hz to 6600Hz) - Upper mids should be boosted sparingly, because this is the frequency that can be most damaging to the human ear. When boosted correctly, the upper mids will produce a chime-y, bell-like sound. The upper mids are also the frequency that sounds most like distortion. This can be a great effect for intense, fuzzed-out keyboards or guitars. On an amplifier, these frequencies would be controlled with the **treble** knob.

Super High (app. 6600Hz to 20,000Hz) - These frequencies are among the highest that the human ear can perceive. They range from stinging and annoying (in the lower part of this range) to ambient and atmospheric, as though you're hearing wind or waves (on the upper end of this range). A lot of producers will dip the upper mids so that nothing sounds too piercing, but they'll boost the super high frequencies to create an atmospheric sound. On an amplifier, these frequencies would be controlled with the **presence** knob.

NOTE: We've divided up the audio spectrum into five "bands," but producers can create their own divisions. A five-band EQ is quite common, but there are also three-band EQs, eight-band EQs, 12-band EQs, 15-band EQs, and more.

Assignment: EQ Experimentation

Experiment with your own EQ settings. Using your home music software, pull up loops for each of the following instruments:

- Kick drum
- Snare drum
- Bass guitar
- Saxophone
- Flute

Let each loop play, one at a time. Then, add on an EQ effect (either one that came with your software or one from an outside plug-in). See what happens to each instrument when you boost certain frequencies and dip others. You'll quickly find that different EQ settings are appropriate for different instruments.

08

song origins: "pony"

08
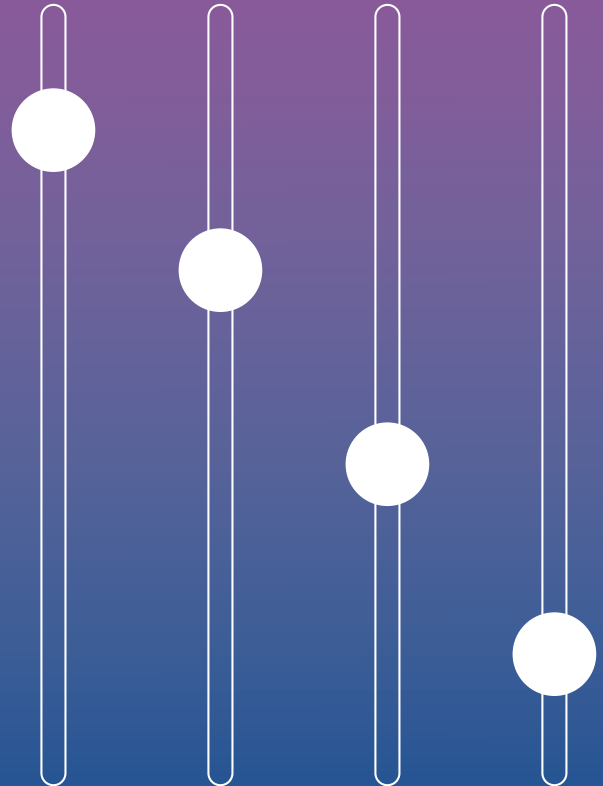
TIMBALAND
Song Origins: "Pony"

> " I try to do timeless things that don't sound like what's going on today… It still sounds new.

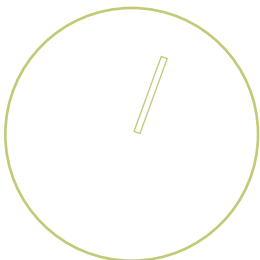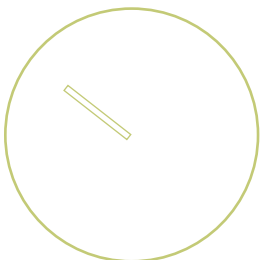"**P**ony" appeared on Ginuwine's album *Ginuwine… The Bachelor* in 1996. Tim, Ginuwine, and the late artist, songwriter, and producer Static Major wrote the song together several years prior. When Ginuwine signed with Sony Music, he chose "Pony" to be his first major single.

Even back in the days of "Pony," Tim selected his samples by using emotion and spontaneity. The heart of the song is the deep bass sample he found on an old rack-mounted sampler. It stood out from the other bass samples for its "frog" tone. Everything else in the mix, Tim says, is "ear candy." One sound was lifted from the video game *Q*bert*. Tim created other sounds himself by blowing into a microphone.
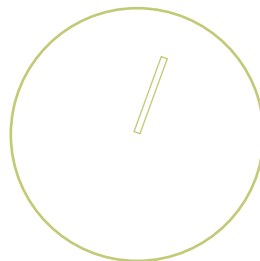
There's no guaranteed formula for making a song "timeless," but it helps to keep challenging yourself to be different. The hits that transcend decades aren't the songs that sound identical to everything else from their era; they added something that no one else had. Think of Michael Jackson's "Beat It," which added heavy guitars to disco-inspired pop. Think of Cypress Hill's "Insane in the Brain," built around a sample of a horse—yes, a horse. It's the artists who dare to be different who really break through.

Dive Deeper: Static Major

The lead songwriter on "Pony" was Static Major. Static wrote music for many of the artists in Timbaland's orbit—Aaliyah, Destiny's Child, and of course, Ginuwine. He was perhaps most famous for cowriting and singing on Lil Wayne's smash hit "Lollipop," which won the 2009 Grammy for best rap song. Be sure to check out the full album, *Tha Carter III*, which also won a Grammy and was in *Rolling Stone*'s 500 best albums of all time.

Sadly Static Major's "Lollipop" fame was posthumous. He died in 2008, the victim of a rare medical condition and a hospital error.

09

making a beat: manipulating vocal samples

09
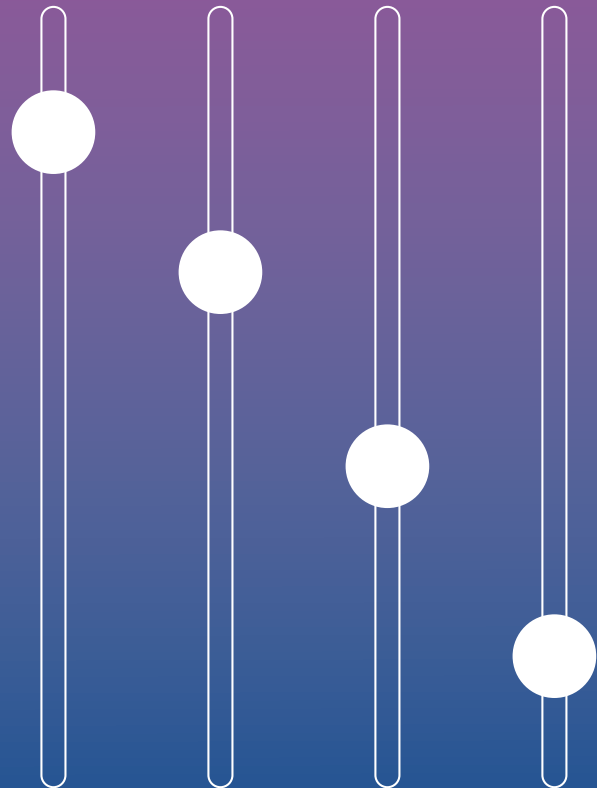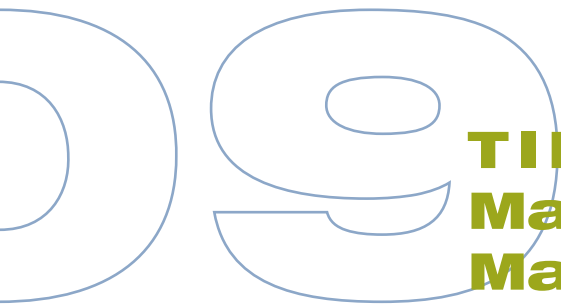
TIMBALAND
Making a Beat: Manipulating Vocal Samples

" When the feeling takes over, it takes over. You don't think about it. You just go.

Each person on Timbaland's team—Tim, Fede, Angel, and Chris—brings his own skill and creative voice. Fede and Angel are masters of their respective software and stay up to date on the latest plug-ins, so they're able to keep the music at the level of freshness and unpredictability that Timbaland fans demand.
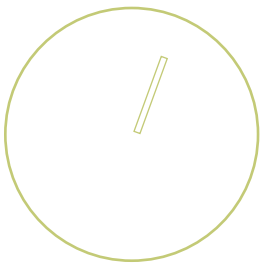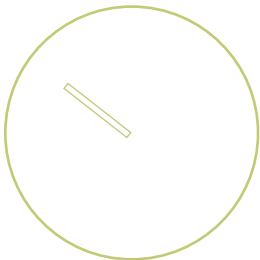
The vocal track that the team works with in this chapter was not recorded live. It was pulled from a CD of fair use vocal samples. The team believes the original sample wasn't good, but Fede saw potential in the vocalist's rhythm. They created something interesting by splicing it and adding numerous effects.

Dive Deeper: Fede's Effect Choices

To change the sound of the bass guitar sample in this chapter, Fede uses a WOW filter plug-in by Sugar Bytes. He's using a setting on the WOW called a formant filter, which is typically used on vocal tracks (to bring out clarity of

syllables). By experimenting, Fede found the filter also sounds refreshing on an electric bass.

He's decided to make the bass sound wider, so he uses a panning effect (part of Logic's built-in effect Guitar Rig) which pushes the sound further to the left and right extremes (and out of the center of the listening mix).

Dive Deeper: Angel's Effect Choices

Angel alters the vocal sample with two plug-ins. The first is Lo-Fi by Air. It allows a producer to degrade an audio track, making it sound like it was recorded on low-fidelity equipment. It does this by using various functions, such as bit-crush, down-sample, clip, rectify, and mangle an input signal. Angel also uses Movement by Output, which is an all-in-one plug-in that can add sidechains, EQ, delay, reverb, compression, filtering, and more. Angel's intention is to create an "airy, spacey" sound with the vocal.

Fede and Angel are fond of the Kickstart sidechain plug-in, made by Nicky Romero. This provides a classic EDM/house/contemporary R&B compression sound. You may find it's too intense for other genres like rock, jazz, or old school R&B.

Most of these effects are possible to generate simply by using your software's built-in functions. The main reason producers seek out these plug-ins is that they have excellent presets (settings tuned at the factory by the product's designers).

Assignment: Alter Your Own Vocals

Start by recording yourself singing something. (Use an external microphone, your computer's built-in mic, or your phone's voice recorder.) Pick a song with melody (perhaps a Top 40 hit, or even just "Happy Birthday").

Now, using the effects you have available, start playing around with it. Adding reverb and delay will quickly and dramatically change your vocal qualities. Adding compression or slight EQ changes may be more subtle.

While certain effects may help your production sound unique, too many all at once can sound muddy and chaotic and drown out the original melody. Remember what Tim says: most of his biggest hits have been remarkably simple, so make your productions sound unique, but use restraint when it comes to effects.

10

making a beat: creating a breakdown
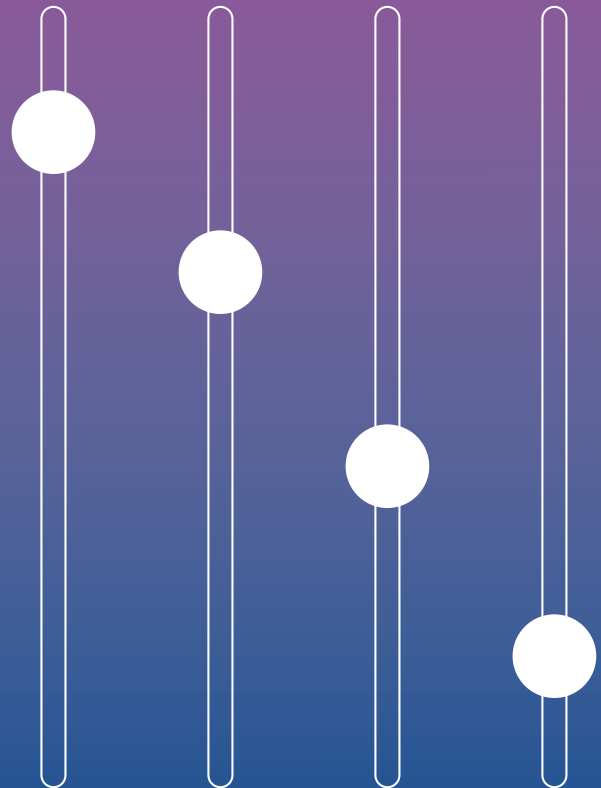
TIMBALAND
Making a Beat:
Creating a Breakdown

" I believe that a hit song is really about the energy you put out.

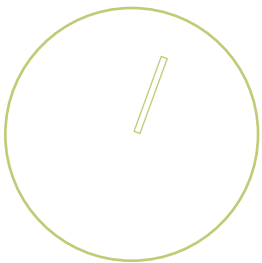**M**usical taste is subjective, and trends come and go, so Tim doesn't obsess over which of his recordings might be hits. He's correctly predicted some of them and been wrong about others. He focuses on what he can control, which is the energy between his collaborators and the feeling they put into the song itself.

When studio communication and energy are at their max, amazing things can happen. Team Timbo has been working to set up this track for success, with Angel creating the chord progression, Fede refining basslines, and Tim loading up his Push with the sounds he wants to use on this song. (Tim says his goal is to build "a rhythm within the rhythm" of the existing beat.) The verbal communication is strong between Tim and the whole team—in fact it's so strong that when Tim says the track needs a breakdown section, Fede is already ready with one. When Tim calls for a cut in the music, Chris can make it without even stopping the track.
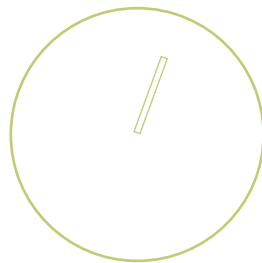
All of this culminates in a backing track where a singer adds a melody (or **topline**) during the next studio session. Not everything that's currently on the track will survive once a vocal topline is added. Ultimately, the song will be driven by its melody, and some of the cool sounds the team has found will get cleared out to let that melody shine.

Sometimes improving a track doesn't mean adding layers onto it. It can also mean *stripping away* layers until you discover the core elements. Finding the simplest form of what you're trying to say can be the most effective form of communication.

Tips for Making a Breakdown

Many popular music songs have sections, usually about two thirds of the way through, that are different from everything else in the piece. In rock and jazz music, these sections are often called the **bridge.** They typically

"

Sometimes stuff comes in small packages. You don't need a lot. It's all about the feeling, the voice, the sonics.

feature singular chord progressions and melodies. In club music (house, EDM, etc.), these sections are often **breakdowns.** The chords remain the same, but another rhythmic element changes. Here are three ways to create a breakdown in your own music.

1. **Strip away:** Removing certain instruments from the mix, most commonly the drums or anything else that's creating a groove. We hear Chris doing that under Tim's direction in this chapter. The breakdown is built around the chords Angel played when the songwriting began.

2. **Slow the tempo:** Slowing down the beat can also create the desired contrast of a breakdown. The most common way to do this is by switching to **half-time.** In half-time, the drums and other rhythmic instruments are playing half as often as they would in the main groove. This means you can think of the whole song slowing down, or continuing at the same tempo, with half as much playing.

3. **Shift the pitch:** You can also keep playing the whole track with full instrumentation, but shift the pitch up or down. Tim demonstrates this by using the Simpler function in Ableton, which samples your entire recorded track and lets you instantly manipulate it, like shifting the pitch when you press certain pads on the Push. (The Simpler can also speed your track up, slow it down, and more.)

Dive Deeper: The EBow

Fede creates some of the key sonics for the breakdown by using an EBow simulator. EBow stands for "Electronic Bow," and it became popular in rock music in the 1970s. It's a battery powered device designed to be a "bow" for an electric string instrument.

When violin, viola, cello, and bass players use bows to glide over their strings, they're able to make them resonate for long periods of time. Guitar (and electric bass) strings don't work that way. You pluck them, and the sound dies down. But with the EBow hovering over a string, the sound can go on forever, or at least until the EBow's battery dies after a couple hours.
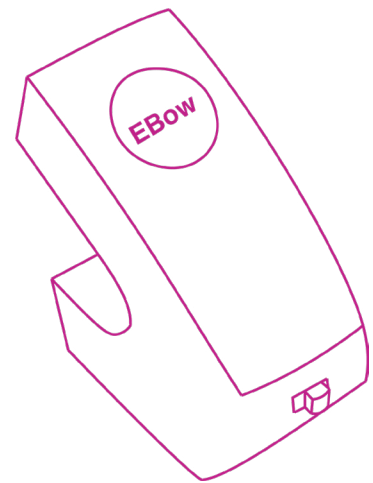
HERE IS A QUICK RUNDOWN OF THE MAJOR DAW OPTIONS:

If you're interested in mainly producing dance pop, EDM, house, and other electronic music, consider Ableton, FL Studio (aka Fruity Loops), Reason, and Akai MPC.

If you're interested in creating orchestral sounds (as in film scoring) by using samples of real instruments and you plan to perform most of the music yourself using MIDI keyboards, investigate Logic, Digital Performer, and Cubase.

If you're primarily interested in recording live audio in a studio, Pro Tools is the industry standard. Many producers also use Logic, Digital Performer, and Cubase for live audio, and even Ableton can be used for this function.

If you're on a real budget and can't afford to pay several hundred dollars for a DAW, many of these programs have limited versions that are available for free. Some of the best free programs include Cakewalk and Garage Band (which is a stripped down version of Logic).

Dig Deeper: Digital Audio Workstations

The software that musicians use to record on computers is called a **digital audio workstation** (almost always abbreviated to **DAW**). You can add third-party sound libraries and plug-ins to create your sonics, but your DAW is the program running the whole show. Tim's DAW is Ableton, but you can also see his collaborators using Logic and Pro Tools.

Tim makes two key points about DAWs: The first is that music isn't all about what software you have or what samples are in your library. The second is that when you select a piece of software, make it your business to really learn it, so the sounds in your head can be efficiently transferred into actual audio tracks.

Exercise: Create a Breakdown

Apply some of Team Timbo's breakdown tricks to your own work. Create a three-track audio loop that includes drums, bass, and some sort of chordal instrument (keyboard, guitar, etc). Make your loop at least eight bars long (or longer if you prefer).

Once the loop has played all the way through a couple times, create your breakdown by using one of the three techniques discussed in this workbook chapter. Try muting the drum track to create that "stripped away" feel, or slow the tempo (or remove some of the drum beats) to create a half-time feel. You can also shift the pitch of the whole thing (almost all DAWs have a pitch-shift function, and if not you can get a plug-in that does, like Celemony Melodyne or DMG Audio PitchFunk).

No matter which technique you use, make sure your breakdown is different from the rest of your song. Cut back on the groove so that when the groove does return, your listener loves it more than ever.
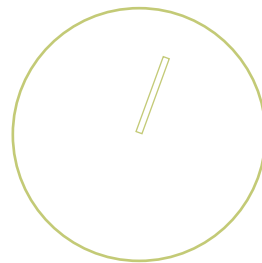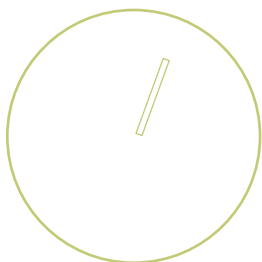
11

song origins:
"gossip folks"

11
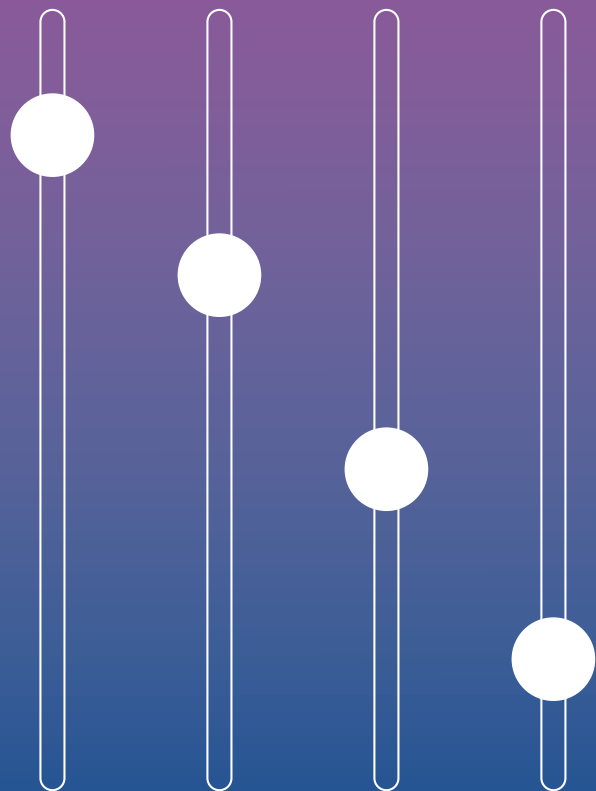
TIMBALAND
Song Origins:
"Gossip Folks"

> " The pie was so perfectly made, it drew that out of Missy.

Part of being a producer is working with artists of all styles and personalities. Missy "Misdemeanor" Elliott is a hands-on collaborator who has strong opinions on all aspects of the production process. Missy and Tim came of age together in the Virginia Beach music scene. She was Tim's partner on his very first hit with Aaliyah ("If Your Girl Only Knew"), and she's been a steady collaborator ever since.

The rhythm track on Missy's hit "Gossip Folks" is infectious, but it's comprised of just a few instruments: kick drum (with a built-in sub-bass effect), snare drum, shaker, and a little click sound that sounds like synth tablas. Tim intentionally kept the track minimal to give Missy space for a virtuosic vocal performance.

Dive Deeper:
Classic Disco and Funk

Once Tim laid the groundwork for "Gossip Folks," Missy added a key sample from "Double Dutch Bus," a 1981 disco funk song. At that point, she deemed the song ready for her vocals with her guest rapper, Ludacris.

Performers and producers like Tim, Missy, and Ludacris were children during the disco era, and that music has inspired what they create today. The intersection of disco and funk continues to provide today's producers with essential samples and inspiration.

If you aspire to produce music like Timbaland's, you *must* immerse yourself in 1970s disco and funk. This is not optional. Here are some records to get you started:

KC and the Sunshine Band, *KC and the Sunshine Band* (1975) - If anyone doubted that disco, funk, and pop could coexist in a single song, KC and the Sunshine Band proved those people wrong time after time. The group, founded in Hialeah, Florida—not far from where Timbaland now lives and works—was a mixed-race pop group at a time when such a thing was highly uncommon. Most famous for its '70s output, the group continues touring to this day.

Chic, *Risqué* (1979) - If today's hip-hop and R&B artists could only sample one song, it might be "Good Times," the opening track on this disco-funk record. The band features guitarist Nile Rodgers and bassist Bernard Edwards, two of the industry's most influential players on their respective instruments.

Michael Jackson, *Off The Wall* (1979) - People call him "the king of pop," but when Michael Jackson broke big in his solo career, it was as a disco artist. Under the guidance of master producer Quincy Jones, Jackson merged long-form dance music with undeniable pop hooks, paving the way for unprecedented stardom on his next record, *Thriller*.

Parliament, *Mothership Connection* (1975) - It's hard to pick just one essential record by Parliament founder George Clinton, but *Mothership Connection* is a good place to start. Equally influenced by James Brown and *Star Trek*, this record set the standard for funk music going forward.
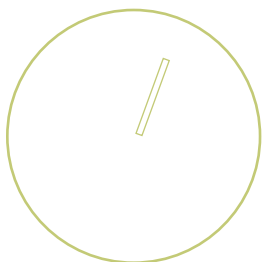
12
## adding a topline
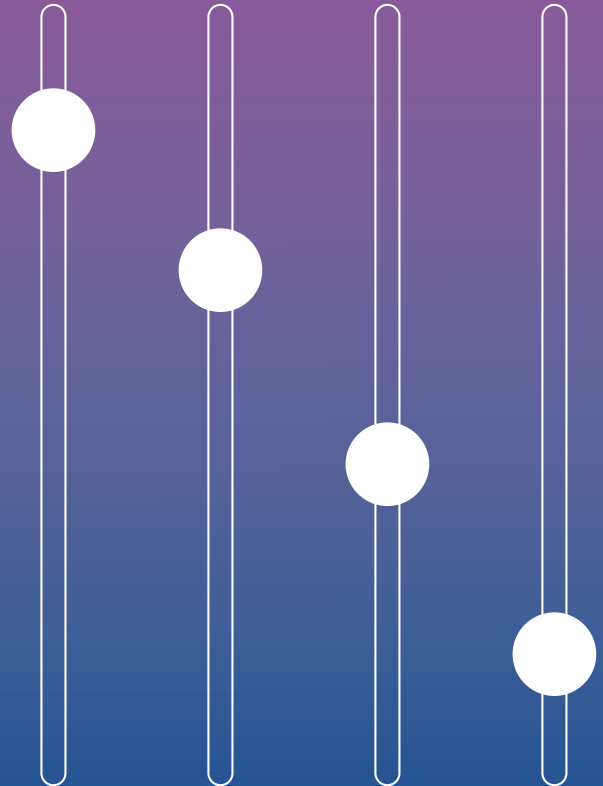
12

TIMBALAND
Adding a Topline

> When you get in a room with an artist, it's all about conversation… There's no thought process. It's all about having fun.

Team Timbo has stripped down the track to create space for the singer Adrian to add a vocal topline. Although the chord progression and fundamental bass and drums remain, a lot of the percussion overdubs and sonic embellishments are gone (it's possible they'll get added back after the vocals are set).
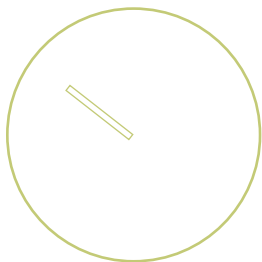
When Tim contributes to vocal writing, he approaches it the same way he approaches drum beats. Sometimes he directs his collaborators, but sometimes he just picks up a microphone and records it himself, as he would with vocal percussion.
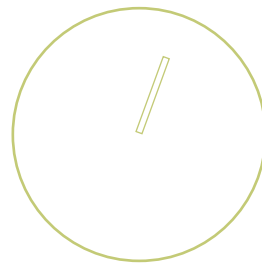
As Fede explains it, the structure of pop music lends itself to particular vocal rhythms. The vocalist starts with a verse, which invites the listener into a song. As producers, they look to leave space around verses. The "pre-chorus" builds in intensity, encouraging the listener to pay attention. Finally, the chorus is the climax of the track—higher in pitch or intensity, so it sticks in the listener's head.

The team's collaboration rests on their interplay. Adrian offers a vocal idea that inspires Tim, who records a vocal line in the booth to inspire Adrian's next take. Angel and Fede jump in with their own pitches about how to refine the track around the vocals. The ideas that survive multiple takes will be the ones that make it to the final recording.

Songwriting Tip: Melody First, Then Lyrics

To work as spontaneously as Timbaland does, you have to remember his direction: "There's no thought process." Building vocal tracks starts with emotion and inspiration. Both Adrian and Tim get their melodies out using dummy lyrics. Refining the lyrics and subbing in actual words will come later. The first order of business is to seize the magic while it's there for the taking.

Do some songwriters write the lyrics first? Definitely. Some writers only write lyrics while others only compose music. Piano legend Elton John is famous for his process with songwriting partner

"

We don't know what the words are, we don't know what the song is about, but you're hearing words that are coming out freely 'cause the music is telling us what it should say, and giving us notes on what it should be about.

Bernie Taupin. As they tell it, Taupin would sit alone in a room writing lyrics, then pass them off to Elton John in a different room, where he would try to set those words to music. Just like Timbaland, that team created a lot of hits.

Assignment

Work with the stems that Timbaland has produced. Download them via this MasterClass, load them into your DAW, and see which sounds you can contribute to the mix. If they catch his ear, he might use them. Remember: Tim likes spontaneity and surprise. He's always striving to create pop music that sounds like no other producer.

13

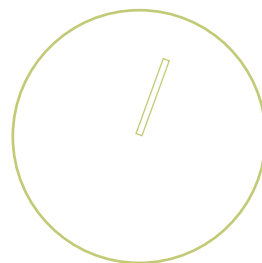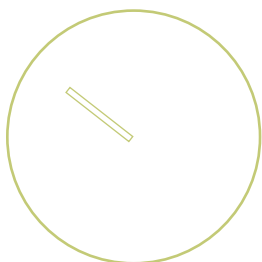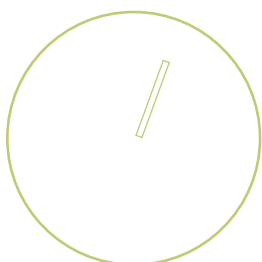## song origins: "are you that somebody?"
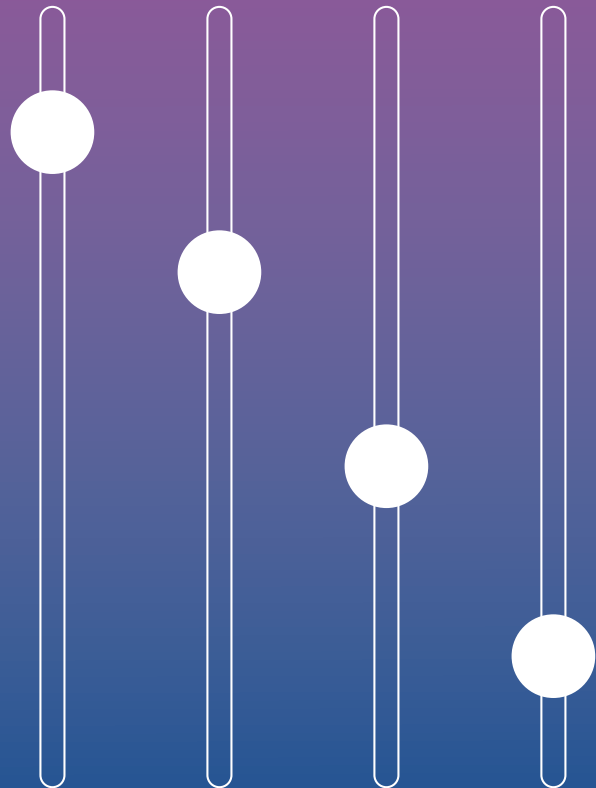
TIMBALAND
Song Origins: "Are You That Somebody"

> "Back again: you've gotta love what you do.

Aaliyah's hit "Are You That Somebody?" was first recorded for the *Dr. Doolittle* soundtrack. It was created and recorded in one night, and some of the best parts of the track were technical accidents. (The quantize function on Tim's keyboard didn't do what he thought it would. Instead, it scrambled the notes of the sample, and Tim decided to keep that effect.)

"Are You That Somebody?" is another track where Tim's vocal percussion was a key part of the final mix. He heard something in his head and rather than dig around for all the right percussion samples, he grabbed a microphone and recorded it.

There are only four main instruments on the track:

• A synth drum kick with a prominent snare sound

• A guitar sample

• Tim's mouth percussion

• A (randomly found) synth lead

• Plus a bonus secret weapon: an altered sample of a baby's laugh.

At the end of the track, Tim pulls instruments out of the mix in order to draw focus to certain sounds. It's a signature Timbaland moment.

The net effect sounds a bit like a nursery rhyme because the vocal follows the percussive sounds within the backing track. It's another example of the "simple but complex" groove that characterizes so many Timbaland productions.

Ultimately, the reason the song came together was because of the chemistry of the collaborators. Tim, Static, and the singers they worked with, were more than just colleagues at work—they were like family.

"

At the end, I kinda always give you a display of the art.

### Recording Tip: Changing the Tempo and Quantizing

In the world of digital music production, you don't have to be a great keyboard player to get the sounds you want. If you're recording a part using a MIDI keyboard, but you can't get the technical playing quite right, *slow down the tempo* until you're able to play it properly. If it's still not quite right, use your program's **quantize** function to snap your performance into the grid. In other words, it aligns what you played with the proper beats. Once you've got the performance just the way you like it, speed the tempo back up before bouncing out the audio.

Assignment: Find a Killer Sound Effect

We all know what the secret sauce is in "Are You That Somebody?" It's the baby! You can find plenty of pop hits with guitar, drums, even vocal percussion, but the laughing baby sample? Not so much. So now it's your turn to take a groove and carefully place a sound effect that changes the whole character of the song. The best of these effects are sounds that no one would see coming, but once you hear them, you can't imagine the song *without* them. If you're looking for a resource for random sound loops, check out www. freesound.org, which has recordings of just about everything.
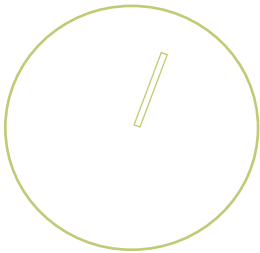
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tim's influences
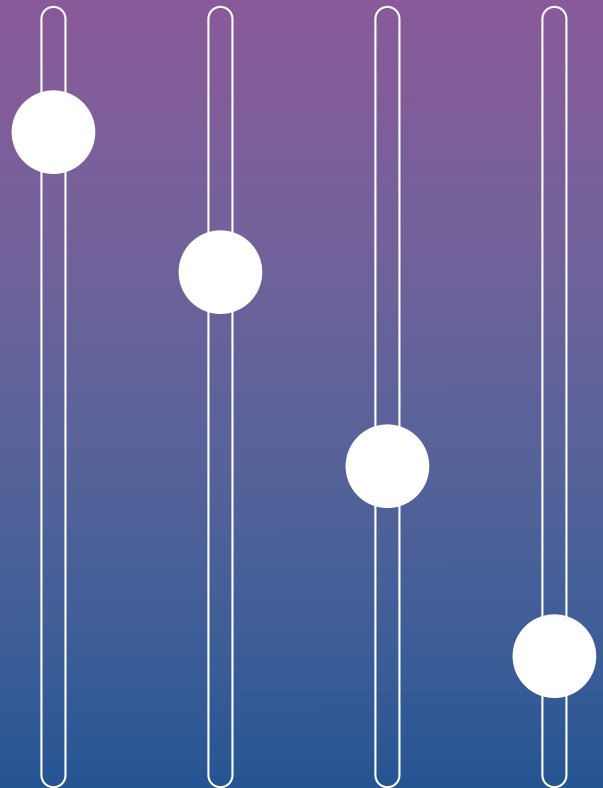
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TIMBALAND
Tim's Influences

> " It was moments. We tried to make moments. And that's why I enjoy the craftsmanship of these producers because they made moments that still live on today.

Timbaland is a singular voice but he's one to share credit, whether that's with collaborators or the producers who who paved the way for his success. A few of these producers stand out among the others:
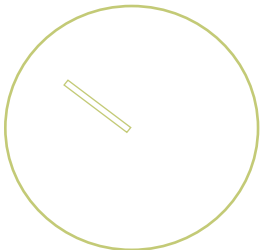
DeVante Swing - A founding member of Jodeci, the 1990s R&B band. He is credited in some circles for "discovering" Timbaland, offering him his first significant opportunity to co-compose and produce recorded music. He is also the founder of the Swing Mob, which was both a collective of artists and a boutique record label. In addition to Timbaland, the Swing Mob included Ginuwine, Missy Elliott, and many others.
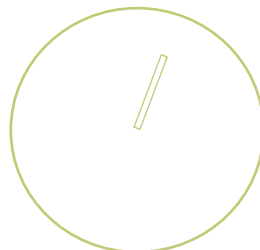
Teddy Riley - Considered the founder of the "new jack swing" style of music—a 1990s-era movement combining elements of hip-hop, dance-pop, sampling, and R&B. Riley is known for active drum patterns that fuse the energy

of dance halls with the sounds of the street. His most famous collaborators include Michael Jackson and Bobby Brown. Tim notes how Riley's skill with snares make his tracks sound unique.

Dr. Dre - Producer, rapper, label owner, and industry mogul, Dr. Dre got his first major break with the Los Angeles hip-hop group N.W.A. As a producer, he is most commonly associated with the West Coast G-Funk style that emphasized slower tempos, memorable instrumental lines, hard-edged lyrics, and mining the classic vaults of the 1970s. He's played a prominent role in the careers of Snoop Dogg, Eminem, 50 Cent, The Game, and Kendrick Lamar, to name only a few. Tim especially admires the simplicity of his arrangements and the way he made every effect sound robust and "action packed."

DJ Premier (aka Primo) - Best known as half of the rap duo Gang Starr. On the strength of that group's output, DJ

> "
>
> I don't think people influenced me; I think people had me interested.

Premier has become an in-demand producer, working with the likes of Anderson .Paak, Common, D'Angelo, Kanye West, Christina Aguilera, Mac Miller, and Ludacris.

Pharrell Williams - A singer, songwriter, producer, and entrepreneur who rose to fame as part of the recording juggernaut the Neptunes. Pharrell later went on to a solo career that has ranged from chart-topping hits to film-score collaborations with Hans Zimmer. Like Timbaland, Pharrell grew up in the Virginia Beach area in the 1970s and '80s, where both were members of the music production ensemble S.B.I. (Surrounded By Idiots). Tim cites his mastery of **bounce**.

Rodney Jerkins - Also known as Darkchild, Jerkins has produced chart-topping hits with Destiny's Child, Beyoncé, Brandy, Monica, Toni Braxton, Lady Gaga, and the Spice Girls. Jerkins was mentored by Teddy Riley, and has spoken of drawing influence from a childhood immersed in gospel music.

Nas - A New York City-based rapper, producer, and entrepreneur. Nas stands out on Timbaland's list of influences for drawing most of his fame as a performer rather than a producer. He is known for creating one of the most acclaimed hip-hop debuts of all time, *Illmatic*. It was released in the same time period that Timbaland was acquiring his first significant producer credits with Jodeci and Aaliyah.

Production Tip: Keep Pushing Forward

Studying the masters is important, but the great producers don't imitate their idols; they draw inspiration from them in order to produce something fresh. Tim learned from masters like Dre and Teddy Riley, but his music does not sound like a clone of theirs.

Tim also does not fall back on repeating his own work. Think about the classic hits he's produced for Aaliyah, Missy, Jay-Z, Justin Timberlake, and so many others. The music he created in this MasterClass doesn't sound like those past hits. He's pushing new boundaries with his current collaborators, whether that's Adrian or country-rock star Brad Paisley.

Assignment

A great producer's signature style comes through across a wide range of recordings. Listen to the following records produced by the same person and identify what connects them all. Is it the way certain instruments are mixed? The presence of certain production effects? Vocal performances? Or per-haps something totally different?

PRODUCER: DR. DRE
- Snoop Dogg, "Who Am I? (What's My Name?)" (1993)
- Eminem, "The Real Slim Shady" (2000)
- Alicia Keys, "New Day" (2013)
- Anderson .Paak, "Who R U?" (2018)

❝

Once you make that cake, let it be eaten. Move on, make another one.

PRODUCER: RICK RUBIN
- LL Cool J, "Going Back To Cali" (1988)
- Red Hot Chili Peppers, "Give It Away" (1991)
- Justin Timberlake, "(Another Song) All Over Again" (2006)
- Wu-Tang Clan, "Ruckus in B Minor" (2014)

PRODUCER: MAX MARTIN
- Britney Spears, "...Baby One More Time" (1998)
- NSYNC, "It's Gonna Be Me" (2000)
- Taylor Swift, "We Are Never Ever Getting Back Together" (2012)
- Ariana Grande, "No Tears Left To Cry" (2018)

Now think about tracks that *you* have produced. Do you find yourself going back to your own signature sounds or effects? Are there certain drum beats or chord progressions that keep making their way into your music? Striking a balance is important: everyone wants a signature sound, but no one wants to be too predictable.
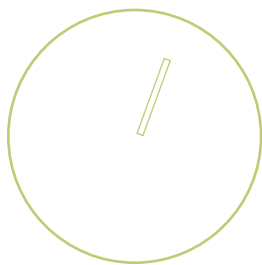
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how to persevere
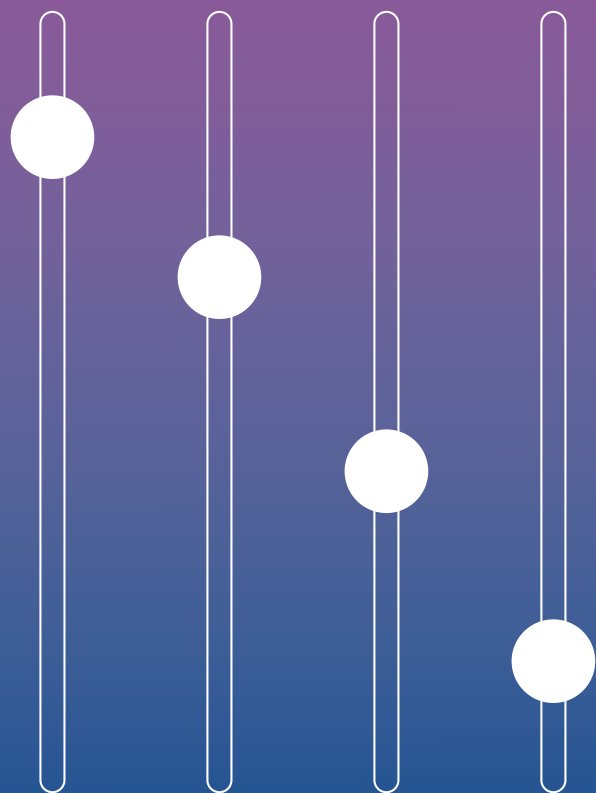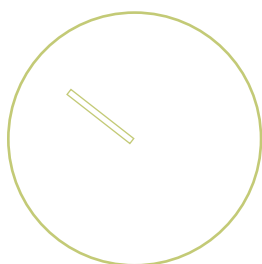
TIMBALAND
How to Persevere

" You're gonna have falls and bumps.
Do you love music enough to get back up?

You have to adopt the right mindset to succeed in music. Persistence is the key for everyone, whether you're a multi-platinum producer or someone just starting out on a laptop computer or a smartphone. There will be many rejections, and some of them will seem unfair. Be open to criticism and dedicated to personal improvement. You have to be a creator, not an imitator. The world already has a Timbaland and a Dre and a Boi-1da; what it now needs is *you*.

You also have to be a collaborator. Today's pop music scene isn't built around auteurs who create every single sound heard on a record. You may start out that way in your home productions, but your big break may end up being a chance to lay down tracks for a topliner you've never met before. You may find yourself looking for fresh ideas, so you team up with someone like Angel or Fede.

We are living through an incredible era for music production. In decades past, people had to pay thousands of dollars for studio time. Thanks to today's digital innovations, almost anyone with a personal computer or smartphone can create music. The flipside is that there's a lot more competition out there. You aren't the only person who can download a free program and start creating beats. You have to work hard, keep releasing new output, and seek out talented collaborators.

The true source of joy in music production for Tim isn't fame and riches—it's about connecting with other people and creating sounds that reach people's ears and hearts across all other boundaries. As long as you focus on music as its own reward, there's no way you can fail.