DISCOVERY SERIES
BALINESE GAMELAN

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NATIVE INSTRUMENTS

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1   Introduction

Welcome to Soniccouture's Balinese Gamelan!

For this edition of Balinese Gamelan, we provide three instruments that represent the three main structural elements of Balinese Gamelan music.

For each of these we provide Original Pitch and Concert Pitch versions, (designated by OP or CP in the filename and seperated to folders "Concert Pitch" and "Original Pitch"). If you want your music to sound like real gamelan, the Original Pitch is preferable. However, if you want to layer your gamelan with other western instruments, you might find Concert Pitch easier to work with.

For each Instrument we provide both a simple and a "synth" version.

1.1   The Core Instruments

These are the instruments that lay out the basic structure and melody, including the Gongs, the Jegog, the Calung, and the Penyacah. In tradtional gamelan, the largest Gong will mark the end of each cycle, and the Calung will play a simple version of the "core melody". The Jegog will double every other note of the Calung melody an octave below.

Generally, in Balinese music, the lower the pitch the slower the instrument plays.

The Jegog, Calung, and Penyacah are doubled in detuned pairs. This produces a constant beating effect, typcial of Balinese gamelan.

1.2 The Gangsa

The Gangsa include the Ugal, Pemadé, and Kantilan. This are the busy elaborate instruments that decorate the melody with fast interlocking patterns.

The upper Gangsa instruments are also in detuned pairs, again providing a shimmering quality to the orchestra.

1.3 The Kettle Gongs

The Kettle Gongs include the Trompong and the Reyong. These instruments have various functions depending on the type of gamelan in which they're used. Sometimes they are used for melodic decoration or solo passages, other times they can be used for very quick elaborate parts, similar to the gangsa. The Kettle Gongs are not in detuned pairs.

2 The Kontakt Front Panels

2.1 Simple Instruments

Front panel controls for simple Instruments

In each of the KONTAKT Instruments you will find front panel controls for attack and release times, which adjust those parameters directly. The Velocity and Timing knobs introduce a slight randomicity to those parameters, helping to provide a "humanizing" effect.

In the Core and Gangsa Instruments you will also find knobs for adjusting the level and panning for each instrument in the detuned pair.

2.2 Synth Instruments

There are numerous controls In the synth version of each instrument as well as several pages with access to various parameters. These versions are better suited for sound manipulation if you want to manipulate the gamelan beyond it's natural sound.

2.2.1 Tweak Page

Tweak page

The **Tweak page** gives you knobs to adjust the LPF Filter, including cutoff, resonance, envelope depth (FEG), FEG Attack and FEG Decay times. There are also knobs for a high pass filter (HPF), the amplitude attack and release times, and a delay and reverb send. The reverb send is in fact a convolution and you have a pull down menu with various different impulse responses.
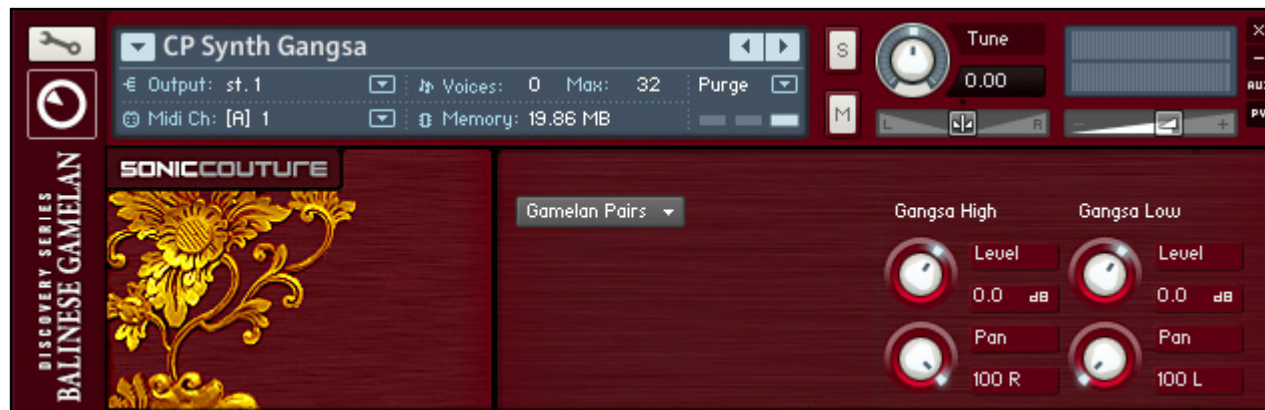
2.2.2 Jammer Page

Jammer page

The **Jammer page** provides control over a function quite similar to an arpeggiator. It's similar in that notes you hold down will be played automatically; but which note will be triggered at a given moment is randomly selected from those you hold down.

See the following list for an explanation of the Jammer's controls:

- **Jam ON** enables or disables the Jammer effect. When the Jammer is on, all throughput of MIDI is disabled, you only hear the output of the Jammer.

- **Time** is a drop-down menu that allows you to choose the repeat speed. This will always sync to the tempo of KONTAKT or your host sequencer.

- **Double Hits** will trigger two notes on each repetition, as if you are playing with both hands simultaneously.

- **MW Vel** is a depth setting that allows you to add or subtract velocity using the Modulation wheel. This will affect notes already held down so you can make swells or fades while the Jammer is already rolling.

- The **Randomize** section allows you to introduce randomicity to the notes as they are being generated.

  - **Randomize Velocity** will add or subtract a random amount of velocity for each note, up to a maximum that you set. This is always in relation to the last played velocity you triggered with your keyboard or sequencer.

  - **Randomize Note** will add or subtract a random value for the MIDI note, which can be useful especially using the zoned Instruments.

  - **Randomize Octave** will randomly add an octave or more (maximum 3) to the generated notes. Note that Octave only introduces added octaves, not subtractions.

  - **Randomize Timing** is best used very subtly if you want to introduce a bit of "human error" into the timing. At higher settings it's a bit avant-garde.

2.2.3   Gamelan Pairs Page

Gamelan Pairs page

The **Gamelan Pairs page** gives you access to the volume and panning for the two detuned elements of the Gangsa or the Core instruments. It is not available in the Kettle Gongs instruments since those are not detuned.

2.2.4   Tweak Control Page

Tweak Control page

The **Tweak Control page** allows you to assign MIDI controllers to the knobs in the Tweak page. This is useful if you have a hardware controller, or want to sequence changes to those parameters.

2.2.5 Jammer Control Page

Jammer Control page

The **Jammer Control page** allows you to assign MIDI controllers to the knobs in the Jammer page. This is useful if you have a hardware controller, or want to sequence changes to those parameters.

3   More about the Gamelan Instruments

3.1   The Core Instruments

3.1.1   Gongs

Klentong

Gong Wadon

The **Gong Wadon**, the deepest gong, is usually the main gong of a rhythmic cycle, marking the beginning or end of a structural section. The other gongs mark divisions within the cycle.

3.1.2 Calung, Panyacah and Jegog

Calung

The **Calung** generally plays the "core melody" of a piece, which often tends to be much slower than the perceived speed of the music. In gamelan, the "core melody" is a kind of a structural base upon which all the other instrumental parts are based. The higher instruments will often play much more quickly, elaborating on this core melody in various ways.

Panyacah

Although the **Panyacah** is a core melody instrument, it is pitched quite high and therefore helps the core melody to ring through the texture. Usually it matches or doubles the rhythmic density of the Calung part.
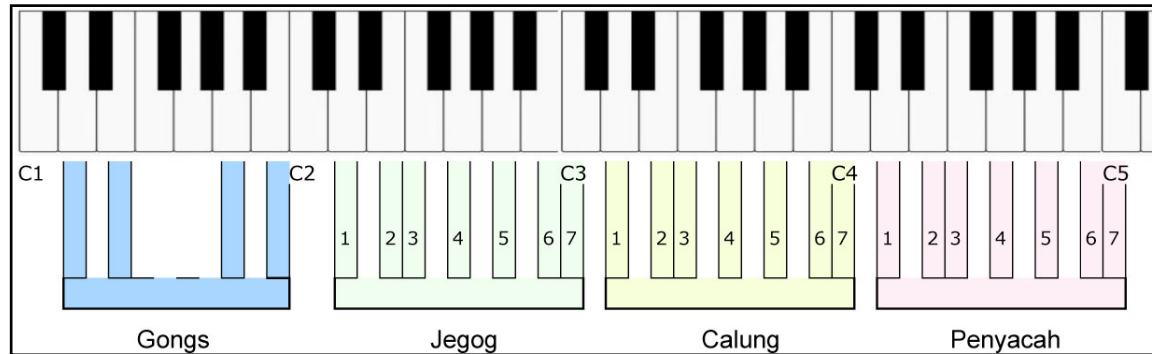

Jegog

The **Jegog** will play more slowly, usually re-inforcing important notes from the Calung part and any gongs in the cycle.

Keyboard Layout

Here is a map of the keyboard layout for the three "colotomic", or core melody instruments:

3.2 The Gangsa

3.2.1 Ugal

Ugal

The **Ugal** is the lowest pitched, and the leader of the "gangsa" section of the gamelan. It usually plays the core melody or an elaboration of the core melody.
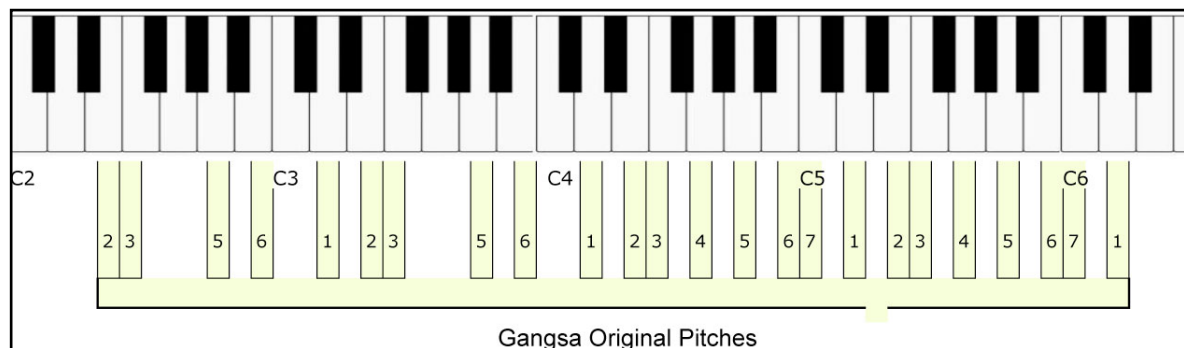
3.2.2 Kantilan and Pemadé

Kantilan

Pemadé

The **Kantilan** and **Pemadé** fill out the higher registers of the gangsa section with a texture of rapid intertwining patterns, which decorate the core melody. Usually the gangsa is the fastest and most ornate content of a gamelan piece.

In real life, the fast passages on Kantilan and Pemadé are played using a technique called "kotekan", in which successive notes are shared between two players, enabling them to play much faster passages than would be possible for a single player.

Keyboard Layout

Gangsa Original Pitches
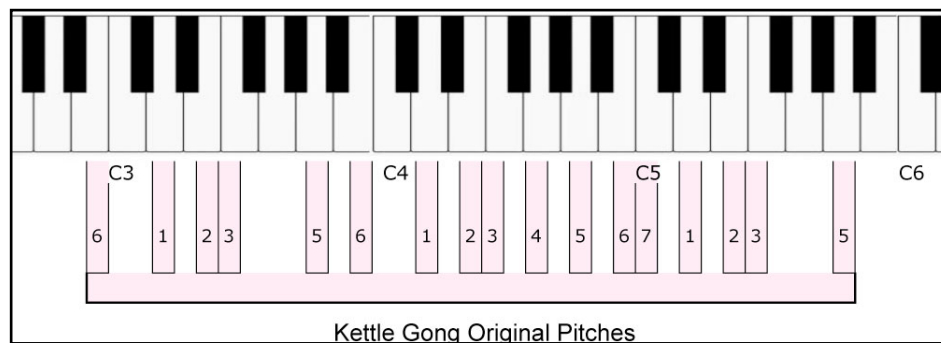
3.3 The Kettle Gongs

The Kettle Gongs are not paired instruments, but solo melodic and decorative instruments. We have provided a combined instrument that includes the lowest notes of the trompong to the highest notes of the reyong, for maximum range.

Kettle Gongs

The Kettle Gongs are very prominent in Kebyar styles, and are often played by four musicians sitting side by side, each responsible for a few notes. These intertwining patterns decorate certain passages, or are featured as a solo section for a piece.

Keyboard Layout

Kettle Gong Original Pitches

4 Kontakt KSP "Gamelan Retune" Script

We include a KSP script with this library called "SC Gamelan Retune.nkp." This script will retune any KONTAKT Instruments you have tuned to the gamelan tuning. This is handy if you want to layer the gamelan with other instruments, using the Balinese tuning.

Put this script into your KSP presets library, and it will available to any instrument in Kontakt.

The script has only one control, which is a switch between "Lower" and "Upper". Since many of the Balinese instruments are in pairs, and each of the pairs are tuned differently, you can choose which of these you want to tune a non-gamelan instument to.

If you double an accompanying instrument, and tune one to "Upper" and the other to "Lower", you will create a similar detune beating to that found in the gamelan itself. If you don't double your accompanying instruments, we recommend using the "Upper" tuning, since it's more consistent across octaves.

5   Credits

Recording, sound design, post-production & graphic design by Dan Powell and James Thompson