



This sound bank is the result of four months of programming the wonderful Korg Wavestate synthesizer. It consists of 20 Performances inspired by the classic sound of the Berlin School of Electronic Music.

All Performances are 100% original and were programmed from scratch, using all four layers. Most of the Performances combine Arpeggiators with Wave Sequences to create generative patterns where you use the keyboard to feed in the notes and let the Arpeggiators and Wave Sequences juggle notes and automate parameters. They are built to be tweaked and twisted while playing, drastically modifying the melodic, rhythmic and sonic content. Each performance is described in depth, with suggestions for both playing techniques and tweaking knobs.

Four of the performances are available for free, as a “preview” of this sound bank, with YouTube videos providing examples of how they can be tweaked and used in a jam:

- WF Alexanderplatz <https://youtu.be/70neSbbP4r0>
- WF Berlin Arp https://youtu.be/Bqqd_GvaWmo
- WF Caprifolium <https://youtu.be/BFnvaKGp3j0>
- WF Zoo Berlin at Night <https://youtu.be/Q4sKzuKF7Ng>

Enjoy 😊

Waveformer
www.waveformer.net

Set List

A 1	WF Alexanderplatz
A 2	WF Berlin
A 3	WF Berlin Sternwarte
A 4	WF Caprifolium
A 5	WF Charlottenburg
A 6	WF Checkpoint Charlie 2
A 7	WF Hauptbahnhof
A 8	WF Helmholtz
A 9	WH Kurfurstendamm
A 10	WF Oranienburger Strasse
A 11	WF Potsdamer Platz
A 12	WF Regenbogen
A 13	WF Regentropfen
A 14	WF Sonnenallee
A 15	WF Spazieren
A 16	WF Unter den Linden
B 1	WF Tempelhofer Feld
B 2	WF Victoria Park
B 3	WF Wilhelmstrasse
B 4	WF Zoo Berlin at Night
B 5	WF Phaserpad
B 6	WF Phaserlogue Solo

General playing tips

Most of these Performances use Arpeggiators in combination with Wave Sequences. Most of them are set up so that the Arpeggiators continue to play (Latch is On), even when you let go of the keys, leaving both your hands free to tweak the Performance. And the Performances are designed to be tweaked live.

Some of the Arpeggiators have Sort set to Off. This is indicated in each of the Performance descriptions below. When sort is off, the arpeggiator repeats the notes you play in the order you play them (at least when Pattern is set to Up). Then, the arpeggiator functions as a very basic looper, repeating the pattern you play.

In some of the Performances, the Arpeggiator is combined with a Timing Sequence with a combination of rests and notes. The Pitch Sequence might have some steps that plays a note one octave up or down. The Step Sequence might be used for holding the same note from one step to the next or do note repeats (ratcheting). Some steps have probability set to less than 100%. And some Sequence Lanes have different Loop lengths in the same Layer, resulting in interesting polyrhythms. The result is that even though there is an Arpeggiator playing, the result doesn't sound like a typical static arpeggiated pattern. It's more like a generative sequence where you use the arpeggiator to feed in the notes, but they are processed and "juggled" to make them more musically interesting.

For Performances with pad layers, if you use a damper pedal, both your hands are free to tweak knobs.

For all layers in all Performances, especially the arpeggiators, experiment with the dedicated parameter knobs, like:

- Filter Cutoff Frequency, Resonance and Env Intensity
- Amp and Filter Envelope Attack and Decay
- Filter LFO Frequency and Intensity
- Reverb Mix

Most of the Performances use the Mod Wheel and the Joystick. For some Performances, the amount of variation is huge, and there's a vast sonic landscape to explore by moving the Mod Wheel or Joystick slowly around.

For some Performances, the Mod Wheel or the Joystick doesn't change the sounds in a drastic way – perhaps just adjusting delay and reverb and some slight filtering. Why is that? Well, the Performances in this sound bank are designed to be tweaked live with all the dedicated knobs on the Wavestate. The complex and time-consuming menu diving is all done. The Wave Sequences have been programmed. The modulations have been set up. Everything is ready for you to tweak. And with all the knobs on the front panel, you have what you need to tweak the sounds right there. There's often no point in mapping filter cutoff or resonance to the Mod Wheel or the Joystick when the knobs to tweak those parameters are right there on the front panel. Just select the Layer you want to tweak and twist the knob labeled Filter Cutoff. That's what this sound bank has been designed for.

Most Performances have mapped the Performance Mod Knobs so that you can control amplifier level (volume) and octave for each layer. Like this:

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

When starting to explore a Performance, it's a good idea to solo just one layer by turning the Amp Level knobs (knobs 5 to 8) to zero for the other layers, so you familiarize yourself with each layer.

During the jam, experiment with fading individual layers in and out using knobs 5 to 8. Solo each layer in turn. Try using the octave knobs to let the bass arpeggiator play an octave or two higher up, like a melody, and let one of the other arpeggiators play an octave or two down, so it takes the role of the bass.

Most of the Performances have mapped multiple wave sequence lanes for one or more layers. Playing around with Loop Start and End opens up for rhythmic variations, sample variations (which can change the sound completely, or create interesting sonic rhythms), pitching the notes an octave up or down for some steps, or using the Step Sequence Lane to create ratchets or glides or other effects.

To play with the Wave Sequences, first read the Performance description, so you know which wave sequence lanes are in use for each layer. Then

- Select Layer - A, B, C or D
- Select WSEQ LANE - TIME, SAMPLE, PITCH or STEP SEQ
- Click the "LANE PRESET" button, and observe the lights running along the 16 WSEQ STEP LED buttons in the lower right
- Turn the LOOP START and/or the LOOP END buttons and experiment

To better hear how your changes are modifying the sound, you could consider lowering the volume of the other layers by turning the corresponding Performance Mod Knobs down, as shown in the table above.

Try changing the tempo of the Performance.

In the Performance descriptions below, I sometimes suggest some notes or chords to play, just to get you started. I put notes in square brackets and indicate with a number which octave the note should be played in. On the Wavestate keyboard, if you do not transpose it using the Octave – and + buttons, the lowest white note is [C3], one octave up is [C4], and one octave up is [C5], and one octave up again to the highest white note on the keyboard, the [C6]. [D0 G0 D1 F1] means you should play four notes – D and G in the lowest octave, D and F in the middle octave on the keyboard.

Arps, note advance and sync notes

If you want to design your own performances using arpeggiators and Wave Sequences, this section might be an interesting read. If you just want to play and tweak the performances in this pack, feel free to skip this part, as it's quite technical.

If you want the wave sequence lanes to advance one step for every note in the arpeggiator, you have two alternatives.

1. Use Note Advance for each Sequence Lane and set each step in the Timing Lane to Gate or Rest (not Note).

2. Don't use Note Advance, but instead turn on Sync Notes, turn on Tempo sync for the Timing Lane, match the Duration for each step in the Timing Lane to the Arpeggiator Resolution, and use Note or Rest (not Gate)

The benefit of alternative 1 (Note Advance) is simplicity. Just turn on Note Advance and you're good to go. There are two disadvantages to using Note Advance. First, if you tweak Loop Start and End for any Sequence Lane while the arpeggiator is running, the current step might get stuck outside the loop and never find its way back, unless you force it back by changing the Start or End step for the Sequence (Shift + Start or Shift + End). The second disadvantage is that if you stop and start the arpeggiators, the active step on one layer might get out of sync with the active step on another layer. This is particularly noticeable if you have rests in the timing lanes and the arpeggiators have different resolutions, for instance if Layer A is playing sixteenth notes and Layer B is playing eighth notes. To get the layers back in sync again, it usually helps to turn each layer on and off again – but that's time-consuming, and not very live-performance-friendly. This problem is described in this YouTube video: <https://www.youtube.com/watch?v=71MWjuySdT0>. So, Note Advance is fine for simple patches, but for more complex patches with multiple arpeggiators, it has problems.

Since I often use rests in the timing lane, for rhythmic effect, and I also often use arpeggiators with different resolution for the different layers, I decided to go for alternative 2 and not use Note Advance.

Here's what I do

- Turn off Note Advance for all Wave Sequence Lanes
- Turn on Sync Notes for all layers (Shift + Wave Sequence Select, to the left of the display)
- Turn on Tempo Sync for all Wave Sequence Lanes (Shift + Timing, in the WSEQ LANES section to the far left of the panel, make sure you do this for all the 7 Lanes)
- Check the Resolution of the Arpeggiator, and make sure each step in the Timing Sequence Lane is set to the same duration
- For each step in the Timing Sequence Lane, set duration to the same as the Arpeggiator Resolution, and set XFade time to 0.053 (if you get clicking noises at the end of each step, try increasing it until the clicking noise goes away, or lower the Amp Envelope Release time)
- Go to the Amp Envelope and increase the Release time to at around 0.1 sec. If the Wave Sequence Steps for some reason do not advance, try increasing this release time slightly. If you increase it too much, you might hear bits of the previous note when the next one triggers. Can be a fun effect, making the arpeggiator play intervals or triads.
- If you keep the arpeggiator playing while you edit the sound, the arpeggiator might get slightly out of sync with the Wave Sequence, and you might hear a clicking noise (or just some weird double triggering artifacts) at the beginning of each note. This does not happen if you just turn a knob, so live tweaking while arpeggiator plays is just fine, but it might happen if you change effect algorithm or do some actions in the menu. If this happens, save your performance and switch to another performance and back again. Or you could try turning each layer on and off. Or stopping the arpeggiator.

WF Alexanderplatz

Demo: <https://youtu.be/70neSbbP4r0>

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody 1	Off	Full range
B	Pad		Full range
C	Arpeggiator Melody 2	Off	Full range
D	Arpeggiator Bass	On	Full range

Performance mod knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

The patch/Performance uses four layers. Layer A, C and D use arpeggiators. Layer B is used for chords. All layers have overlapping keyboard zones, so the same notes go into all four layers. The three arpeggiators are configured with note sorting off. This makes the arpeggiator somewhat resemble a very simple looper, repeating the played pattern.

Layer A plays an arpeggiated melody. The Gate Sequence Lane has 16 beats. The first 8 steps have a few rests (gate length 0), the last 8 steps are all rests (giving more space to melodies from the other layers). The Step Sequence Lane controls the Pitch LFO to add a strong vibrato on every 31st beat, kind of simulating tape flutter on a tape delay.

Layer B is a pad sound used for chords. Use a foot switch to hold the notes for the chords, leaving you with both hands free to tweak knobs. This patch uses the Amp LFO to create variations in the pad. The Pitch LFO modulates the Amp LFO Frequency so it varies slowly from slow to fast. You can change the Amp LFO Intensity and waveform during the jam, so sometimes the pad is more plinky-plonky than smooth.

Layer C is another arpeggiated melodic part. I finally figured out how to create proper ratcheting (note repeat) on the Wavestate. The envelopes can be set to trigger from any source, not just note on! So, I set the filter envelope to be triggered by Mod Processor 1. And Mod Processor 1 does a scale operation on the Amp LFO and the Step Sequence Lane. The Amp LFO is tempo synced with frequency set to dotted 32nd notes and waveform set to saw ramp up. In the Step Sequence Lane, a step with value -100% means a normal note, and a value of 0% means ratcheting with proper retriggering of the filter envelope.

For Layer C, try changing the Sample Sequence Lane Loop Start and End. You can get a very nice interplay with the loop length and the number of notes that the arpeggiator plays.

Layer D does bass, with notes from the arpeggiator. Gate Sequence Lane has lots of rests, making the arpeggiator much more interesting. Again, the number of notes that the arpeggiator plays combined with the rhythmic pattern laid out by the Gate Sequence results in lots of variations.

Use Performance Mod Knob 5-8 to fade the 4 different layers in and out. And Knob 1-4 to change the octave for each layer, so layer D can play bass most of the time, but by setting a higher octave, it

is playing an arpeggiated melody. Layer C plays an arpeggiated melody most of the time, but using the octave knob, it can also do bass duty.

WF Berlin Arp

Demo: https://youtu.be/Bqqd_GvaWmo

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator #1 - Sample sequence of 15 different bell and synth sounds	On	Full range
B	Arpeggiator #2 - Vocalscape sample	Off	Full range
C	Arpeggiator #3 -16 step timing sequence with many rests. Shape sequence with some racking.	On	Full range
D	Arpeggiator #4 - 16 step sample sequence with misc percussive sounds. Timing lane with some rests with less than 100% probability.	On	Full range

Performance mod knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

The arpeggiators use different patterns, different speeds, and different sort settings, so the melodies created by the arpeggiators are different for each layer. Also, there are some rests in the Timing Sequence Lane for some of the layers. The Filter LFO modulate Filter Cutoff Frequency, so some notes are more muted than others. There's some randomness added to the panning (using the Pan LFO with a random waveform). And the Amp LFO modulates Filter Envelope Decay, so some notes are more plucky than others. All to create constant variation.

WF Berlin Sternwarte

Layer	Type	Keyboard range
A	Arpeggiator Melody	C5 to G9 (upper octave)
B	Solo	C-1 to B4 (lower and mid octave)
C	Arpeggiator Bass	C5 to G9 (upper octave)
D	Pad	C5 to G9 (upper octave)

Performance mod knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Layer A Filter Morph Pitch Envelope Amount
Joystick X	Layer A Filter Cutoff and Filter Envelope Amount
Joystick Y	Layer A Filter Crossfade Amount

Layer A uses the Multi Filter and morphs between a low pass filter and a band reject (notch) filter using the Pitch Envelope, adding a nice and bouncy attack. Use the Mod Wheel to dial in filter morph amount and play around with the joystick.

Layer B (solo) also uses the Multi Filter and morphs between low pass and band reject (notch) using the Pitch Envelope. Changing Pitch Envelope Decay controls how fast the higher frequencies fall off. Filter Envelope Decay is also nice to play around with. And the sample can be changed with the Layer Mod Knob 3/Sample, or just setting Sample Sequence Start position with shift + START.

Playing

Start arpeggiator with some notes in the upper octave [C5-C6]. Hold the notes, or use the pedal, to keep the pad in Layer D playing. Play solo in lower and mid octave.

Suggested notes/chords: [C5 G5 Eb5] - Cm, Bb, Fm, Eb, Cm ... Cm, D, Fm Cm

Twisting knobs

Layer A (Arpeggiator Melody): **Timing Sequence** Lane Loop Start and End for rhythmic variations.

Sample Sequence Loop Start and End for sample variations - explore and enjoy.

Layer B (Solo): **Sample Sequence** Lane Start for sample variations (or use Layer Mod Knob 3/Sample)

Suggested scene:

Layer A **Timing Sequence** Lane loop [Start: A1, End: A3]. **Sample Sequence** Lane loop [Start: A4, End: A5].

Mod Wheel almost max

Joystick X 10%, Y -10%

WF Caprifolium

Demo: <https://youtu.be/BFnvaKGp3j0>

Layer	Type	Keyboard range
A	Analog-style el-piano-ish melodic layer	Full range
B	A Wave Sequence with different choir wavesamples	Full range
C	A Wave Sequence with some pad-ish samples, LFO panning, quite short gate time and lots of pauses	Full range
D	A Wave Sequence with some subtle very short percussive sounds with lots of pauses and random LFO panning	Full range

Performance Mod Knobs

1 Reverb Mix	2 Layer B Amp Level	3 Layer A Sample	4 Layer A Delay Mix and Time
5 Layer A Pan LFO Intensity	6 Layer A Unison Voices	7 Layer A Unison Detune	8 Layer A Pith LFO Freq

Joystick controls the relative volume levels of each layer (volume mode).

Mod Wheel controls Pitch LFO amount (vibrato) for Layer A.

WF Charlottenburg

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody (panned right)	Off	C-1 to B4 (lower and mid octave)
B	Arpeggiator melodic pattern (panned left)	On	C-1 to B4 (lower and mid octave)
C	Arpeggiator Bass	On	C-1 to B3 (lower octave)
D	Pad		C5 to G9 (upper octave)

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Layer D (pad) Filter Cutoff Frequency
Joystick X	Reverb amount
Joystick Y	Layer D (pad) Filter LFO Frequency (use together with Mod Wheel)

Playing

Start by playing a note in the lower octave (below and up to B3) to synchronize the arpeggiators.

For the pad, transpose keyboard 2 octaves up and play open voicings.

Suggested notes/chords: [C3 G3][Eb4 D4 C4 Ab4 G4] for arps and bass. For pad in upper octave: Cm, Cm7, Eb, Bb, Gm7

Twisting knobs

For Layer A and B (arpeggiators): **Time Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for changing samples and looping sample patterns. **Step Sequence** Lane Loop Start and End for glide on some notes. Go explore, especially in the Sample Lane!

For Layer C (Bass): **Time Sequence** Lane Loop Start and End for rhythmic variations.

For Layer D (Pad): **Sample Sequence** Lane Loop Start and End for sample variations. Try setting Loop Start to 1 and Loop End to 8, for slow movement through different wavesamples

Filter Cutoff for Layer A, B and C.

Performance mod knobs for octave (knob 5, 6, 7), for Layer A, B, C, turning a melody arp (Layer A and B) into bass, and a bass (Layer C) into a melody.

WF Checkpoint Charlie

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Bass	Off	C-1 to B3 (lower octave)
B	Arpeggiator Melody	On	C4 to G9 (mid and upper octave)
C	Pad		C4 to G9 (mid and upper octave)
D	Arpeggiator Percussion	On	C-1 to B3 (lower octave)

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Filter Cutoff and Filter Env Decay for Layer A, B, C, D. Typically used to lower the overall intensity.
Joystick X	Reverb amount
Joystick Y	Delay Feedback

Playing

Start by simultaneously hitting one note in the lower octave and one note in the mid or high octave, so the arpeggiators are in sync from the start.

Suggested notes/chords:

Bass: [G3 D3 B3 A3] [G3 Eb3 B3 A3]

Arp: Gm Eb F Dsus4

Twisting Knobs

For Layer A (Arpeggiator Bass) and B (Arpeggiator Melody): **Timing Sequence** Lane Loop Start and End, for rhythmic variations. Try moving the Loop End to A1 for a while, for notes on every step, increase Loop End to A3 or A5 for a while, looking for interesting patterns, and then all the way back to B16, for more rests and a more varied pattern.

Mod Wheel softens everything, and with the Joystick, you can increase delay and reverb amount, making everything more dreamy.

Filter Cutoff Frequency for Layer A, B and D.

As always, fade the different layers in and out using the Performance mod buttons (button 5-8).

WF Hauptbahnhof

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody	Off	Full range
B	Arpeggiator Bass, slow Arpeggiator with rests on timing lane	On	C-1 to B3 (lower octave)
C	Choir		Full range
D	Sound effects		Full range

Performance Mod Knobs

1 Layer A Sample select	2 Layer B Octave	3 Layer C Sample select	4 Layer D Filter Resonance
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Filter Cutoff for Layer A, B, C. Typically used to lower the overall intensity.
Joystick X	Reverb amount
Joystick Y	Delay Feedback for Layer A

Playing

Start by playing a note in the lower octave (up to B3) so the arps are synchronized.

[G3 D3 F3] Gm

[G3 C3 Eb4] Cm

[G3 A3 D3] Dsus4

F

Twisting knobs

Layer A (Arpeggiator Melody): Select a single sample with Performance Mod Knob 1 or change **Sample Sequence** Lane Loop Start and End for sample variations.

Layer B (Arpeggiator Bass): Change octave with Performance Mod Knob 2. Change **Timing Sequence** Lane Loop End to add or remove rests from the pattern (shorter loop = fewer rests, longer loop = more rests).

Layer C (Choir): Select a different sample with Performance Mod Knob 3. Turning knob to the right will increase loop length (from 1 to 3 steps) as well.

Layer D (Sound Effects): Add resonance with Performance Mod Knob 3.

WF Helmholtz

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody	On	C-1 to B4 (lower + mid octave)
B	Pad		C-1 to B4 (lower + mid octave)
C	Solo		C5 to G9 (upper octave)
D	Arpeggiator Bass	On	C-1 to B3 (lower octave)

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Layer C Solo Filter Cutoff and LFO
Joystick X	Layer B Pad Filter Morph Amount, between LP+BP and custom (25% low pass 25% high pass 59 % mid), and Filter LFO Amount
Joystick Y	Layer B Pad Filter Cutoff, Filter LFO Frequency

Playing

Start with playing a note in the lower octave to synchronize the arpeggiators.

Play 1 or 2 notes in lower octave, 1 or 2 notes in mid octave

[E3 B3][E4 G4] - Em Hm D Em Em Am D Em

Or: [C3 G3] [C4 Eb4] - Cm Abmaj7 Bb. Solo start: C6-G5-F5-G5

Twisting knobs

Layer B (Pad): The Joystick is really doing a lot of subtle work on the Pad Layer. Explore the sonic landscape by slowly moving the joystick around. Combine joystick movement with increasing Filter Resonance and increasing Filter LFO Frequency (from default at 0.6 Hz, up to 6 Hz and beyond).

Layer C (Solo): Use the Mod Wheel to make the solo soar. Use Performance Mod Knob 3 to change octave. Play some notes legato. Pitch wheel works only on this layer, so you can safely use that.

A lot of care has been put into utilizing many of the Sequence Lanes for Layer A and D, so spend some time playing around with Loop Start and Loop End for each of these Lanes. The default Loop Start and End is often A1 to A8, and variations are introduced by changing loop end beyond A8.

Layer A Arp

Sample Sequence Lane Loop Start and End. Step A1 to A8 uses a Saw wavesample, A9-A16 has several different wavesamples. Use loop length 1 for just changing the single sample or use a longer loop length to cycle through different wavesamples.

Pitch Sequence Lane Loop Start and End. Increase Loop End beyond A8 to include some notes in a higher octave. Experiment with different loop lengths, short and long, to create interesting rhythmic variations.

Step Sequence Lane Loop Start and End for portamento glide on step 9, 10, 11.

Layer D Bass

Time Sequence Lane Loop Start and End. Increase Loop End beyond A8 to introduce rests for rhythmic patterns. Experiment with longer and shorter loops.

Sample Sequence Lane Loop Start and End for sample variations. Lots of different sounds to cycle through.

Step Sequence Lane Loop Start and End for Filter Cutoff, with open filter on step 10, 15 and 16.

WH Kufurstendamm

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody 1	Off	C-1 to B4 (lower + mid octave)
B	Arpeggiator Melody 1	On	C-1 to B4 (lower + mid octave)
C	Arpeggiator Bass	On	C-1 to B3 (lower octave)
D	Pad		C5 to G9 (upper octave)

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Layer D (pad) Filter Cutoff and Filter LFO Intensity
Joystick X	Layer D (pad) Filter Resonance (for right half of joystick range), Amount of Pitch LFO modulating Filter Morph (for left half of joystick range)
Joystick Y	Layer D (pad) Filter LFO Frequency (for upper half of joystick range) , Frequency of Pitch LFO modulating Filter Morph (for lower half of joystick range)

Playing

Start by playing a note in the lower octave (C-1 to B3) to synchronize the arpeggiators.

Note suggestion: [D3 A3] [C4 F4]

For the pad in Layer D, shift the keyboard up two octaves and play using spread chords over the whole three octaves.

Twisting Knobs

Layer A (Arpeggiator Melody 1): **Timing Sequence** Lane Loop Start and End for rhythmic variations.

Sample Sequence Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for pitch (octave) variations.

Layer B (Arpeggiator Melody 2): **Timing Sequence** Lane Loop Start and End for rhythmic variations. In general, the more to the right you move Loop End, the more rests there are in the pattern.

Sample Sequence Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for pitch (octave) variations. **Step Sequence** Lane Loop Start and End for ratcheting (combining Pitch LFO and **Step Sequence** in Mod Processor 1 to enable ratcheting and set number of retriggered notes).

Layer C (Arpeggiator Bass): **Timing Sequence** Lane Loop Start and End, for rhythmic variations. Also, change the octave with Performance Mod Knob 3.

Layer D (Pad): Use Mod Wheel and Joystick together to play around with the filter. There's a huge and diverse landscape here to explore, from lush pad to wobbly fx, so take your time and enjoy.

Sample Sequence Lane Loop Start and End to select different samples – either single samples or multiple samples that crossfades slowly from one to the next.

WF Oranienburger Strasse

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody 1	On	Full range
B	Arpeggiator Bass	On	C-1 to B3 (lower octave)
C	Arpeggiator Melody 2	On	Full range
D	Arpeggiator Melody 3	Off	Full range

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Mod Wheel lowers the general intensity, lower Filter Cutoff Frequency and less Filter Envelope Intensity
Joystick X	Layer D (arp 3) Delay Mix
Joystick Y	Reverb Mix

Playing

Start by playing one note in the lower octave to synchronize the arpeggiators.

Play 2 or 3 notes in the bass (lower octave).

Play 3-5 notes in the mid and upper octaves

Suggested Notes:

[E3 G3 A3] [C4 E4 A4 C5]

[E3 A3 B3] [E4 B4 A4 G4]

Twisting knobs

Timing Sequence Lane Loop Start and End for all layers, for rhythmic variations / rests.

Sample Sequence Lane Loop Start and End for Layer A, C and D, for sample variations.

Pitch Sequence Lane Loop Start and End for Layer A and D, for octave shifts on some steps.

Step Sequence Lane Loop Start and End for Layer D, for ratcheting (note repeat)

WF Potsdamer Platz

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody 1 (darker, more emphasis on bass)	On	Full range
B	Arpeggiator Melody 2	On	Full range
C	Arpeggiator Melody 3	On	Full range
D	Pad		Full range

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Mod Wheel lowers the general intensity, making everything more dreamy, lower Filter Cutoff Frequency, shorten Envelope Decay times
Joystick X	Reverb mix
Joystick Y	Layer C (arp 3) Delay Mix and Feedback. Layer D (pad) Delay Mix and Chorus Mix. Making everything more dreamy.

Playing

Play spread chords. Play an odd number of notes, for instance 5 or 7. Hold the pad with a sustain pedal. Fade the layers in and out using the Performance Mod Knobs (Amp Level, knob 5-8).

Twisting knobs

Layer A (Arpeggiator Melody 1 Dark): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Pitch Sequence** Lane Loop Start and End for just the single octave shift on step14.

Layer B (Arpeggiator Melody 2): **Timing Sequence** Lane Loop Start and End – step A1-A8 are all notes, step A9-B16 are all rests.

Layer C (Arpeggiator Melody 3): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps.

Layer D (Pad). **Sample Sequence** Lane Loop Start and End for sample variations. Try increasing Loop End to A6. Also, try changing Filter Cutoff and Resonance. And Filter LFO Frequency and Intensity and Waveform (try the Exp Saw waveform). And Amp LFO Frequency and Intensity.

Turn Mod Wheel all the way up to make the sound dreamier. Change the octave for the bass + 2 octaves (Layer A, Performance Mod Knob 1). And move the Joystick to 1 o'clock, for more delay and reverb.

WF Regenbogen

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody 1	Off	Full range
B	Arpeggiator Bass	On	Full range
C	Arpeggiator Melody 2	Off	Full range
D	Arpeggiator Melody 3	Off	Full range

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Make everything softer by lowering Filter Cutoff and Filter Envelope Intensity
Joystick X	Delay Feedback and Mix for all Layers.
Joystick Y	Reverb Mix

Play

Suggested Notes / Chords:

[C4 Eb4 G4 Bb4 D5] = Cm9, Ab+7,8,9 Fm7+2 Gm7

[Eb4 Bb4] -> G3 in base (=EbM), switch to [Eb3 Bb3 G4] +[Ab4 Bb4]

[Eb3 Bb3] -> + [C4 G4] -> Back to start, Cm9

Twisting Knobs

Layer A (Arpeggiator Melody 1): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps.

Layer B (Arpeggiator Bass): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Step Sequence** Lane has ratcheting (note repeat) on step 15 with 40% probability, so set Loop End to a value lower than A15 to remove all ratcheting.

Layer C (Arpeggiator Melody 2): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Step Sequence** Lane sets the Amp LFO Intensity, so play around with Loop Start and End to modify which steps has a strong tremolo.

Layer D (Arpeggiator Melody 3): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations.

WF Regentropfen

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody 1 (fast)	Off	C4 to G9 (mid + upper octave)
B	Arpeggiator Melody 2 (the strange mellow one)	Off	C4 to G9 (mid + upper octave)
C	Arpeggiator Bass	Off	C-1 to B3 (lower octave)
D	Arpeggiator Melody 3	On	Full range

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Make everything softer by lowering Filter Cutoff and Filter Envelope Intensity
Joystick X	Delay Feedback and Mix for all Layers.
Joystick Y	Reverb Mix

The Step wave sequence lane on layer A, B, C and D is used to hold notes in the arpeggiator so the same note plays on two or more consecutive steps (by modulating portamento time). The **Step Sequence** Lane is also used for ratcheting (note repeat). Mod Processor 2 is a gate that allows for this dual usage. A step value of -100% results in note hold, while a positive step value controls ratcheting amount.

Playing

Start by hitting one note in the lower octave and one note in the middle or upper octave (for instance G3 and G4) at the same time, to sync the arpeggiators.

Suggested Notes / Chords:

[G3 D3] [G4 A4 Bb4 C5 D5]

Gm - Eb - Cm7 - Dm7

Twisting Knobs

Layer A (Arpeggiator Melody 1): **Timing Sequence** Lane Loop Start and End (steps 9-16 are all rests, used to create space). **Sample Sequence** Lane Start and End (not Loop Start and End, so use Shift + Start or Shift + End) for alternative samples selected at random. **Pitch Sequence** Lane Loop Start and End (for a few higher octave notes on steps 9-16). **Step Sequence** Lane Loop Start and End (for note hold and ratchet)

Layer B (Arpeggiator Melody 2): **Timing Sequence** Lane Loop Start and End to 1 for no rests / no rhythmic variations. Some rests in the full 16 **Step Sequence**. **Sample Sequence** Lane Loop Start and End for alternative samples. **Pitch Sequence** Lane Loop Start and End for some higher octave notes on steps 9-16. **Step Sequence** Lane Loop Start and End for note holds and slower attack times.

Layer C (Arpeggiator Bass): **Timing Sequence** Lane Loop Start and End for some rests on step 9-16. **Sample Sequence** Lane Loop Start and End for slight sample variations. **Pitch Sequence** Lane Loop Start and End for some higher octave notes on steps 9-16. **Step Sequence** Lane Loop Start and End for note hold on steps 1-8, no note holds on steps 9-16.

Layer D (Arpeggiator Melody 3): **Timing Sequence** Lane Loop Start and End for some rests on steps 9-16. **Sample Sequence** Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for some higher octave notes on steps 9-16. **Step Sequence** Lane Loop Start and End for note hold and ratcheting on steps 9-16.

WF Sonnenallee

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Bass	On	C-1 to B4 (lower + mid octave)
B	Arpeggiator Melody 1	Off	C5 to G9 (upper octave)
C	Arpeggiator Melody 2	Off	C-1 to B3 (lower octave)
D	Arpeggiator Melody 3	Off	C-1 to B4 (lower + mid octave)

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Layer A Filter Cutoff and Filter Envelope Decay
Joystick X	Layer B Pre FX (Decimator) Sample Rate
Joystick Y	Layer B Pre FX (Decimator) Timbre

Playing

Sync the arpeggiators by playing one note in the lower octave and one note in the higher octave, for instance [D3 D5]. Try playing 2 notes in lower octave, 1-2 notes in middle octave, scales or single notes in upper octave.

Suggested notes and chords:

Layer A, C, D: [D3 A3]

Layer C, D: [D4 F4]

Layer B: [F5, E5, D5, A5, G5]

Chords: Dm, Am, Gm, Bb or A

Tweaking knobs

Layer A (Arpeggiator Bass): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps. **Step Sequence** Lane Loop Start and End for different accents (Amp Level for each step).

Layer B (Arpeggiator Melody 1): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Step Sequence** Lane Loop Start and End for variations in Filter Envelope Decay Time.

Layer C (Arpeggiator Melody 2): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End. **Step Sequence** Lane Loop Start and End for ratcheting (note repeat), on step 1 (try setting both Loop Start and End to A1).

Layer D (Arpeggiator Melody 3): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations. **Step Sequence** Lane Loop Start and End for variations in Filter and Amp Envelope Decay Time. Amp and Filter Env Decay. Change octave to -2 to make it do bass duty (Performance Mod Knob 4).

WF Spazieren

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Quarter notes ascending	On	Full range
B	Arpeggiator Eighth notes descending	On	Full range
C	Arpeggiator Sixteenth notes ascending, rhythmic pattern with rests	On	Full range
D	Arpeggiator Quarter notes, slow bass	On	C-1 to B4 (lower + mid octave)

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Make everything softer by lowering Filter Cutoff and Filter Envelope Intensity
Joystick X	Reverb Mix
Joystick Y	Delay Mix for all Layers

Playing

Start by playing a note in the lower or middle octaves to synchronize the arpeggiators.

Suggested notes:

[D3 A3] [D4 F4 A4 C5 E5 G5 A5]

Twisting knobs

Layer A: **Sample Sequence** Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps. Shape Sequence Lane Loop Start and End for ratcheting (note repeat) on step 10 and 15.

Layer B: **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps.

Layer C: **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations. Shape Sequence Lane Loop Start and End for ratcheting (note repeat).

Layer D: **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations. **Step Sequence** Lane Loop Start and End to hold (repeat on next step) some notes in the arpeggiator.

WF Tempelhofer Feld

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody	Off	Full range
B	Arpeggiator Bass	On	C-1 to B3 (lower octave)
C	Choir Pad		Full range
D	Solo		C4 to G9 (mid and upper octave)

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Soften Layer A, B, C (Lower Filter Envelope Intensity)
Joystick X	Reverb Mix
Joystick Y	Delay mix and feedback for Layer A and D

Playing

Play a note in the lower octave first, to synchronize arpeggiators.

Suggested Notes/Chords:

[E3 G3 H3] = Em

Em, Hm, D, C, A, B, ...

Twisting knobs

Layer A (Arpeggiator Melody): **Timing Sequence** Lane Loop Start and End for rests / rhythmic pattern. **Sample Sequence** Lane Loop Start and End for sample variations.

Layer A and B: Filter Envelope Decay

WF Unter den Linden

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melody	Off	Full range
B	Arpeggiator Bass	On	Full range
C	Arpeggiator Call	On	Full range
D	Arpeggiator Response	On	Full range

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Filter Cutoff and Filter Env Decay for Layer A, C, D
Joystick X	Reverb Mix
Joystick Y	Delay Feedback for Layer A, C, D

Play

Suggested Notes / Chords:

[D3 A3] Melody in mid octaves [D4, F4] [E4 G4]

Dm Am Gm, 7ths

Twisting knobs

Layer A (Arpeggiator Melody): **Timing Sequence** Lane Loop Start and End for rests / rhythmic pattern. **Sample Sequence** Lane Loop Start and End for sample variations.

Layer B (Arpeggiator Bass): **Timing Sequence** Lane Loop Start and End for rests / rhythmic pattern. **Sample Sequence** Lane Loop Start and End for sample variations (Saw or Square).

Layer C (Arpeggiator Call): **Timing Sequence** Lane Loop Start and End for rests / rhythmic pattern. **Sample Sequence** Lane Loop Start and End for sample variations.

Layer D (Arpeggiator Response): **Timing Sequence** Lane Loop Start and End for rests / rhythmic pattern. **Sample Sequence** Lane Loop Start and End for sample variations. **Shape Sequence** Lane Loop Start and End for ratcheting (note repeat).

Try letting Layer B and Layer D switch roles. Layer B = Oct +2 turns into melodic arpeggiator, Layer D = Oct -1 turns into bass.

WF Victoria Park

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Melodic pattern	On	Full range
B	Arpeggiator Chord stabs	On	Full range
C	Arpeggiator Descending pattern	On	Full range
D	Arpeggiator Bass	On	C-1 to B3 (lower octave)

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Soften everything, make it more dreamy
Joystick X	Reverb Mix and Room Size
Joystick Y	Add more rests to Layer A, B, C

Playing

Start by playing at least one note in the lower octave to synchronize the arpeggiators.

Suggested notes/chords:

[D3 A3] [D4 F4 A4 D5]

Dm C/D B/D A/E Dm

Alternative notes/chords:

[C4 G4]

[E3 A3] Eb, Abmaj7, Am, Fm, C, Cm, Bd -> Fm

Twisting knobs

Layer A (Arpeggiator Melody): **Timing Sequence** Lane Loop Start and End for rhythmic variations.

Sample Sequence Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps. **Step Sequence** Lane Loop Start and End for variations in Filter Cutoff per step.

Layer B (Chords): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations. **Step Sequence** Lane Loop Start and End for variations in Filter Cutoff per step.

Layer C (Arpeggiator Descending): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations.

Layer D (Arpeggiator Bass): **Timing Sequence** Lane Loop Start and End for rhythmic variations.

WF Wilhelmstrasse

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator Bass	On	C-1 to B4 (lower + mid octave)
B	Arpeggiator Melody 1	On	C-1 to B4 (lower + mid octave)
C	Arpeggiator Meoldy 2 (fast)	Off	C-1 to B4 (lower + mid octave)
D	Solo	On	C5 to G9 (upper octave)

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Octave	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Layer D (Solo) Filter Cutoff. Turn Wheel to open up the Filter.
Joystick X	Reverb Mix and Room Size
Joystick Y	Layer C Pause and Delay Feedback. Layer B Filter Envelope Attack and Decay. Layer B and C Pan.

Playing

Try playing an interval of two notes in the lower octave, for instance a fifth. Combine this with some notes in a row from a scale in the middle octave. And play solo in the upper octave. If you need a bigger range for the solo, use the Octave + button to transpose the keyboard. Remember to use the Mod Wheel to open the Filter when playing the solo.

Twisting knobs

Layer A (Arpeggiator Bass): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps. Shape Sequence Lane has some volume modulation on some steps. **Step Sequence** Lane has slight variations in Filter Cutoff for some steps.

Layer B (Arpeggiator Melody 1): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps (B14 and B15). **Step Sequence** Lane Loop Start and End for some variations in Pitch LFO Intensity per step.

Layer C (Arpeggiator Melody 2 Fast): **Timing Sequence** Lane Loop Start and End for rhythmic variations. **Sample Sequence** Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps. Shape Sequence Lane Loop Start and End for some slight variations in volume on each step. **Step Sequence** Lane Loop Start and End for ratcheting (note repeat) on some steps (A5, B1).

Layer D (Solo): Fade in the solo voice using the Mod Wheel.

Try using the octave Performance Mod Knobs (knob 1 to 4) to turn the Bass on Layer A into a melody, and to turn the Melody in Layer 2 into a bass.

WF Zoo Berlin at Night

Demo: <https://youtu.be/Q4sKzuKF7Ng>

Layer	Type	Arp sort	Keyboard range
A	Arpeggiator 1 Melody Fast	Off	C-1 to B5 (lower + mid + upper octave)
B	Arpeggiator 2 Melody Fast	Off	C-1 to B5 (lower + mid + upper octave)
C	Arpeggiator 3 Melody and Bass	Off	C6 to G9 (above upper octave, push Octave + button 3 times)
D	Arpeggiator 4 Slow Bass	On	C-1 to B5 (lower + mid + upper octave)

Performance Mod Knobs

1 Layer A Octave	2 Layer B Octave	3 Layer C Resonance	4 Layer D Octave
5 Layer A Amp Level	6 Layer B Amp Level	7 Layer C Amp Level	8 Layer D Amp Level

Modulation source	Destination
Mod Wheel	Layer C Filter Cutoff. Turn Wheel to open up the Filter.
Joystick X	Layer C Amp LFO Frequency, Filter LFO Intensity
Joystick Y	Layer C Amp LFO Intensity and Pan LFO to Filter Cutoff Intensity

Layer A and B are fast arpeggiators (sixteenth notes). They are similar, but have different panning settings, fade in and out, out of phase, creating a wide stereo image. Layer D is a slow arpeggiator (half notes) that plays bass mostly. The Wave Sequence has lots of rests, creating space for the other layers. The arpeggiator in layer C plays quarter notes and is used for both melody and bass. Layer A and layer C makes heavy use of Wave Sequence for both samples, pitch and rhythm (note repeats and rests).

I usually use all the LFOs on all layers to modulate some parameters, often just for subtle variations in amplitude, pitch, filter envelope decay and panning, to make the sound more varied and "alive".

Playing

The patch uses keyboard zones. To play the arp in layer C (Keyboard Zone C6-G9), hit the "Octave +" button three times, and remember open up the filter using the mod wheel. Take care to start the arpeggiator in Layer C in sync with the other arpeggiators. The joystick can add some amp level LFO if you dial in a longer decay time for the filter envelope (0.7-1 second).

Layer A, B and C can be played without transposing the keyboard. Stick to the two lower octaves (C3-B4), because there seems to be a bug in the Wavestate that retriggers the wavesequences if an arpeggiator plays outside a keyboard zone. So, if you play in the upper octave (C5-B5), it will sound weird/boring/repetitive.

The arpeggiator in Layer C does not sort the notes, so try playing a small melody, and the notes will be repeated, like a very basic looper.

Tweaking knobs

Layer A (Arpeggiator 1 Melody Fast): **Sample Sequence** Lane Loop Start and End for sample variations. **Gate Sequence** Lane Loop Start and End for rhythmic variations.

Layer B (Arpeggiator 2 Melody Fast): **Gate Sequence** Lane Loop Start and End for rhythmic variations.

Layer C (Arpeggiator 3 Melody and Bass): **Sample Sequence** Lane Loop Start and End for sample variations. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps. Shape Sequence Lane is used for some variations in amplitude level per step. Try changing the Resonance (can be done with Performance Mod Knob 3, or with the Resonance knob).

Layer D (Arpeggiator 4 Slow Bass): Use the Mod Wheel to open up the filter. **Pitch Sequence** Lane Loop Start and End for octave shifts on some steps. Shape Sequence Lane is used for volume-based ratcheting (note repeat). **Gate Sequence** Lane Loop Start and End for rhythmic variations.

WF Phaserpad

This pad is from the WF Kufurstendamm Performance and uses only one layer.

The Performance relies heavily on the Phaser effect and long stereo delays. Use Mod Wheel and Joystick together to play around with the filter. There's a huge and diverse landscape here to explore, from lush pad to wobbly fx, so take your time and enjoy. Tweak Sample Sequence Lane Loop Start and End to select different samples – either single samples or multiple samples that crossfades slowly from one to the next.

WF Phaserlogue Solo

This solo instrument is from the WH Helmholtz Performance and uses only one layer.

Use the Mod Wheel to make the solo soar. Use the Joystick to add Filter LFO (positive Y axis) or Amp LFO Tremolo (negative Y axis), with LFO frequency controlled by the Joystick along the X-axis.