

M C Alchemist & ðə founouharmɒnɪk sɪnθetɪk

ðə kɾɪptɪk lɪŋgwɪstɪk

Notes on Construction, Articulation & Machine Interpretation

ðə kɾɪptɪk lɪŋgwɪstɪk (The Cryptic Linguistic) began as an attempt to construct an album from phonetic categories rather than words. Each track focused on a specific family of speech sounds: trills, ejectives, implosives, clicks, uvular fricatives, lateral fricatives, and other articulations rarely encountered in popular music.

The experiment quickly encountered a problem. Human language is not designed to function as music when stripped down to its mechanical components. Nor is a music-generation system designed to abandon musicality completely.

What followed was a negotiation between intention and algorithm. The prompts attempted to drive the system toward pure phonetics; the system repeatedly attempted to reassemble the material into something resembling music.

The resulting recordings occupy an uncertain territory between linguistic demonstration, sound art, machine hallucination, and experimental composition.

Track 1: Tuner Peg Snaps

The opening piece explores voiceless obstruents: speech sounds produced by restricting or interrupting airflow without engaging vocal fold vibration. These sounds are among the least sonorous elements of human speech, consisting largely of bursts, hisses, scrapes, and abrupt closures.

In constructing the track, the intention was to remove as many traditionally musical vocal qualities as possible. No vowels were used, no sustained tones were encouraged, and no voiced resonance was permitted. The resulting material resembles a malfunctioning pneumatic system more than conventional singing.

The generated arrangement follows this concept surprisingly well. Harsh electronic textures, bursts of static, and unstable instrumental gestures mirror the abrupt airflow mechanics of the phonetic material.

Representative Sound Fragments

Pfff → [pf]

A voiceless labiodental affricate. The sound begins with a brief closure at the lips before releasing into heavy friction between the lower lip and upper teeth. The result is a sharp, pressurised burst of air.

sttt → [st]

An alveolar sibilant followed by an abrupt stop closure. Air is channelled along the centre of the tongue, creating a concentrated hiss before being terminated suddenly by the tongue striking the alveolar ridge.

khhh → [x]

The voiceless velar fricative. Produced by narrowing the space between the back of the tongue and the soft palate, creating a rough, abrasive airflow. Similar sounds occur in German *Bach* and Scottish *loch*.

thss → [θs]

A compound transition beginning with a dental fricative and moving immediately into a high-frequency alveolar sibilant. The effect is a shift from diffuse airflow to focused turbulence.

shkt → [ʃktʰ]

A complex sequence beginning with a postalveolar sibilant, moving through a velar closure, and ending in a sharply released stop. The resulting gesture has a distinctly mechanical quality, resembling the sound of a switch, latch, or relay engaging.

Listening Notes

The title *Tuner Peg Snaps* emerged automatically from the generative process. Although unintended, it proved remarkably appropriate. The track often resembles the sounds of mechanical tension, sudden releases, and structural failure, making the title one of the more fitting descriptions produced during the project.

Track 2: Digital Stomach Growl

The second piece explores one of the most unusual families of human speech sounds: the implosives. Unlike ordinary consonants, which are typically produced by pushing air outward from the lungs, implosives involve a brief inward movement of air created by lowering the larynx while maintaining a closure elsewhere in the vocal tract.

The original intention was to construct a piece from these glottalic ingressive articulations alone. Their characteristic gulping, suction-like quality inspired the title, which was generated

automatically during the composition process and retained because it perfectly captured the resulting sound world.

Where *Tuner Peg Snaps* was sharp, dry, and abrasive, *Digital Stomach Growl* occupies the opposite extreme. The vocal material is heavy, wet, resonant, and subterranean. Rather than hisses and bursts of escaping air, the listener encounters a sequence of inward-drawn impacts, glugs, and pressure shifts. The unstable low-frequency electronics reinforce this sensation, creating the impression of a machine attempting to digest itself.

Representative Sound Fragments

Bhgg → [b]

The voiced bilabial implosive. The lips form a complete closure while the larynx lowers slightly. When the closure is released, air moves inward rather than outward, creating a distinctive gulping effect.

dhgg → [d]

The voiced alveolar implosive. The tongue contacts the alveolar ridge behind the upper teeth while the larynx descends. The release produces a compact, inward-drawn impact with a strong resonant character.

jhgg → [j]

The voiced palatal implosive. Produced with the tongue body raised toward the hard palate, this articulation creates a deeper and more enclosed acoustic space than its alveolar counterpart.

ghgg → [g]

The voiced velar implosive. Formed at the soft palate using the back of the tongue, this sound possesses the darkest and most cavernous resonance of the implosive family employed on the track.

Listening Notes

Many listeners describe the resulting vocal textures as sounding less like speech and more like swallowing, glugging, or mechanical fluid transfer. This is not entirely accidental. Implosives are among the rarest consonant types encountered in European languages, and their unusual airflow mechanics can produce a distinctly organic quality when isolated from ordinary speech.

The title *Digital Stomach Growl* may initially appear absurd, but it arguably provides the most accurate description of the track's sonic character. Throughout the piece, the interaction between the implosive vocal gestures and the unstable electronic textures creates the impression of an electronic organism processing, digesting, or circulating some unknown substance deep within its internal machinery.

Track 3: Film Projector Fire

Having explored airflow restriction and implosive suction, the project next turns to a very different articulatory phenomenon: trills. Unlike stops or fricatives, trills are not produced through a fixed constriction. Instead, a relaxed articulator is set into rapid vibration by the passing airstream, creating a repeating cycle of closures and releases.

The result is one of the most mechanically evocative categories of speech sound. Trills naturally resemble engines, motors, rattling machinery, and unstable rotating systems. During development, the combination of continuous rolling articulations and increasingly unstable electronic textures repeatedly generated sounds reminiscent of failing mechanical devices, ultimately inspiring the title *Film Projector Fire*.

Where the previous track was dominated by heavy, inward-drawn gulps, this piece is driven by continuous vibration. The vocal line rarely settles. Instead, it rolls, sputters, accelerates, and threatens to break apart under its own momentum. The accompanying electronics reinforce this sensation, creating the impression of an aging projector attempting to run far beyond its safe operating limits.

Representative Sound Fragments

Brrrr → [b]

The bilabial trill. Produced by holding the lips loosely together and allowing the airstream to set them into repeated vibration. Acoustically, it resembles a motor, purr, or exaggerated lip-roll.

rrrrrr → [r]

The alveolar trill. The tongue tip repeatedly strikes the alveolar ridge behind the upper teeth as airflow passes through the oral cavity. This is the familiar rolled "r" found in many languages.

Rrrrrr → [R]

The uvular trill. Generated further back in the vocal tract, where the uvula vibrates against the tongue body. The resulting sound is deeper, rougher, and often more unstable than the alveolar trill.

Listening Notes

Unlike many speech sounds, trills are inherently dynamic. They cannot exist as static articulations. Every trill contains an internal cycle of motion, making them unusually effective at creating the illusion of machinery. Throughout the track, these repeated vibratory gestures merge with the unstable electronic textures until the distinction between voice and mechanism becomes increasingly difficult to identify.

The title *Film Projector Fire* captures this perfectly. The track often evokes the sound of gears slipping, bearings rattling, reels spinning beyond tolerance, and mechanical systems entering catastrophic failure. Whether heard as speech, machinery, or some hybrid of the two, the piece occupies an uneasy territory between biological vibration and industrial collapse.

Track 4: Wlly-llw Glitch

After the mechanical turbulence of trills, *Wlly-llw Glitch* moves into one of the smoothest regions of the phonetic landscape: approximants and liquids. These sounds are produced when the articulators approach one another closely enough to shape the airflow, but not closely enough to create the turbulence characteristic of fricatives.

In many ways, approximants occupy the boundary between consonants and vowels. They are among the most fluid and sonorous sounds available to the human vocal tract. The original experiment attempted to strip away abrupt closures, friction, and percussive impacts, leaving only continuous transitions and gliding articulatory motion.

Predictably, this presented a challenge to the generative system. Whereas previous tracks were built from abrupt events and mechanical interruptions, this material encouraged continuous movement. The resulting soundscape often resembles a synthesizer whose control voltages are melting in real time, with vocal gestures flowing seamlessly into one another without clear boundaries.

Representative Sound Fragments

Ywll → [jɪ]

A transition from the palatal approximant [j] (similar to the initial sound of *yes*) into the alveolar lateral approximant [ɪ]. The movement is smooth and highly resonant, lacking any abrupt interruption of airflow.

wllj → [wɫj]

A labio-velar approximant followed by a lateral articulation and a palatal constriction. The sequence creates a sensation of continuous reshaping rather than distinct phonetic events.

hwyll → [ɥɫ]

The voiced labial-palatal approximant [ɥ], produced through simultaneous lip-rounding and palatal tongue positioning, resolving into a lateral approximant. The resulting sound is rare, fluid, and difficult to classify within familiar English phonetic categories.

lll → [ɭ]

A prolonged alveolar lateral approximant. Air escapes around the sides of the tongue while the central passage remains blocked, creating one of the smoothest and most sustained consonantal sounds available.

Listening Notes

If *Film Projector Fire* evoked unstable rotating machinery, *Wlly-llw Glitch* suggests something less mechanical and more electronic. The track frequently resembles a malfunctioning oscillator whose waveform is being continuously stretched, folded, and reshaped. Distinct events become difficult to identify as one sound melts into the next.

The repeated sequences of glides and liquids often create the impression of a signal slipping between states, neither fully stable nor entirely broken. The result is one of the most fluid pieces on the album, occupying a strange territory between speech, synthesis, and electrical drift.

Track 5: Hulth Zhlth

This track explores one of the more unusual corners of human speech production: the lateral fricatives. While most fricatives direct air along the centre of the tongue, lateral fricatives force the airflow around the sides instead. The result is a distinctive rushing texture that can resemble escaping steam, wind passing through narrow openings, or pressurised pneumatic systems.

For this experiment, the focus shifted away from smooth approximant motion and toward sustained friction. However, unlike the sharp, focused hiss of conventional sibilants, lateral fricatives possess a broader and often stranger acoustic profile. The air does not strike the teeth in the familiar manner of sounds such as [s] or [ʃ]. Instead, it escapes laterally around the tongue margins, producing a texture that many listeners find difficult to identify.

The generated result frequently sounds less like speech and more like a machine venting pressure through a complex arrangement of valves and bypass channels. Combined with the unstable electronic backdrop, the track often resembles a malfunctioning industrial system attempting to relieve internal pressure.

Representative Sound Fragments

hulth → [ɬ]

The voiceless alveolar lateral fricative. Produced by sealing the centre of the tongue against the roof of the mouth while forcing air around the sides. This sound occurs in Welsh, where it is represented by the double-letter *ll*.

zhlth → [ɮ]

The voiced alveolar lateral fricative. Mechanically similar to [ɬ], but with active vocal fold vibration. The resulting sound combines turbulent airflow with a deep resonant buzz.

thlh → [ɮ̥]

A dentalised lateral fricative. The tongue is positioned closer to the upper teeth, subtly altering the resonance and spectral balance of the airflow.

Listening Notes

Unlike the gliding, fluid articulations of the previous track, *Hulth Zhlth* is built almost entirely from sustained aerodynamic turbulence. The piece occupies an unusual middle ground between voiced resonance and pure noise, often sounding as though air is being forced through a complex mechanical structure rather than a human vocal tract.

The title itself resembles a fragment from an unknown language, but in reality it serves as a convenient approximation of the lateral friction textures at the heart of the composition. Throughout the track, the listener is invited to hear speech not as language, but as airflow engineering. The result is one of the album's most distinctive sonic environments: a landscape of pressure, turbulence, and controlled release.

Track 6: Puk Tuk Diagnostic

After exploring airflow, vibration, gliding motion, and lateral turbulence, the project turns toward one of the most fundamental building blocks of speech: the plosive. Plosives are produced by completely blocking the airflow before releasing it suddenly, creating a brief acoustic burst. They are among the most common consonants in human language and form the basis of countless rhythmic structures.

For this experiment, however, the goal was not to create rhythm in the conventional musical sense. Instead, the plosives were treated as mechanical trigger events: sharp acoustic impulses firing in rapid succession like relays, switches, diagnostic pulses, or machine instructions. The resulting material proved particularly compatible with the vocoder textures used throughout the piece.

Unlike the continuous airflow of the previous tracks, *Puk Tuk Diagnostic* is built almost entirely from abrupt starts and stops. Every articulation functions as a discrete event. The listener is presented with a stream of impacts, closures, releases, and trigger points, creating the impression of a machine performing a self-test or transmitting a sequence of control signals.

Representative Sound Fragments

Puk → [p'k]

A bilabial closure followed by a velar release. The combination produces a compact, mechanical impact with a distinctly percussive quality.

Tukp → [tkp]

A rapid sequence of alveolar, velar, and bilabial closures. The articulators move through multiple positions in quick succession, creating a dense cluster of mechanical attacks.

Tsuk → [tʃk]

An affricated release beginning with an alveolar closure before moving into frication and terminating with a velar stop. The resulting gesture combines both impact and scrape.

kpt

A tightly compressed stop sequence involving multiple closure points within the vocal tract. Rather than functioning as speech in the conventional sense, the cluster operates almost like a percussive drum fill executed entirely by the mouth.

Listening Notes

Of all the tracks on the album, *Puk Tuk Diagnostic* may be the closest to conventional machine music. The repeated plosive events naturally create patterns that resemble pulses, triggers, and switching operations. Even when the surrounding electronics remain unstable and atonal, the vocal material repeatedly suggests systems attempting to establish order.

The track often sounds like a piece of obsolete laboratory equipment cycling through a sequence of calibration routines, emitting a stream of clicks, impacts, and status signals whose original purpose has long since been forgotten. The result is simultaneously mechanical, playful, and faintly absurd—a machine speaking entirely in closures and releases.

Track 7: Khakh Xhax Qhaq

By the midpoint of the album, the experiment has moved far beyond the regions of the vocal tract normally used in everyday English speech. *Khakh Xhax Qhaq* explores uvular and pharyngeal articulations: sounds produced at the extreme rear of the oral cavity and deep within the throat itself.

These consonants are among the most physically imposing sounds employed throughout the project. Rather than relying on the lips, teeth, or tongue tip, they recruit structures located close to the boundary between the oral cavity and the pharynx. The resulting textures are abrasive, gravelly, and often difficult for untrained listeners to distinguish from one another.

The original intention was to create a landscape of pure throat friction. The generated arrangement responded by producing one of the album's harshest sonic environments, where the distinction between vocal performance and mechanical abrasion becomes increasingly blurred.

Representative Sound Fragments

Khakh → [χ]

The voiceless uvular fricative. Produced by narrowing the space between the tongue body and the uvula, creating a deep, dry scraping noise. Similar sounds occur in several Middle Eastern and Caucasian languages, as well as certain dialects of German.

Qhaq → [q̠]

The voiceless uvular stop. Formed by completely blocking the airflow at the uvula before releasing it suddenly. Acoustically, it resembles a deeper and heavier counterpart to the familiar [k].

Xhax → [ħ]

The voiceless pharyngeal fricative. Generated by constricting the walls of the pharynx itself, creating a breathy but powerful friction deep within the throat. This articulation occurs in languages

such as Arabic but is entirely absent from standard English.

Listening Notes

Many of the sounds explored in this piece occupy articulatory regions unfamiliar to most English speakers. As a result, listeners often interpret them as belonging to some distant or fictional language. In reality, they are genuine phonetic categories found throughout the world's languages, simply isolated from their usual linguistic context.

The title *Khakh Xhax Qhaq* emerged directly from the phonetic material itself and therefore serves as both a name and a rough description of the track's dominant articulations. Unlike some of the more metaphorical titles elsewhere on the album, this one is essentially self-documenting.

Throughout the piece, the voice ceases to function as a carrier of language and instead becomes a source of raw texture. The resulting soundscape often resembles metal scraping against stone, air passing through damaged machinery, or geological forces grinding against one another deep underground. It is arguably the closest the album comes to transforming speech into pure friction.

Track 8: Square-Wave Puncture

Having explored deep-throat fricatives and uvular articulations, the project next turns to one of the most energetic consonant classes in human speech: the ejectives. Unlike ordinary stops, ejectives do not rely solely on airflow from the lungs. Instead, they are produced by trapping a pocket of air between a closure in the vocal tract and a tightly sealed glottis, before compressing and releasing that air in a sudden burst.

The result is a family of consonants that often sound unnaturally sharp and forceful. Their acoustic profile is characterised by abrupt pressure release, making them ideal candidates for a track built around impacts, sparks, and violent discontinuities.

The generated arrangement responds by creating one of the album's most aggressive sonic environments. Harsh electronic textures collide with a stream of glottalic detonations, producing the impression of overloaded circuitry repeatedly arcing, shorting, and reconnecting under extreme stress.

Representative Sound Fragments

P'k → [p']

The bilabial ejective. The lips form a complete seal while the glottis closes tightly. As the larynx rises, air pressure builds before being released as a sharp, explosive pop.

t'k → [t']

The alveolar ejective. Produced at the alveolar ridge behind the upper teeth, this articulation creates a compact, high-pressure release with a distinctly mechanical quality.

k'p → [k']

The velar ejective. Formed further back in the vocal tract at the soft palate, generating a deeper and more forceful acoustic burst.

p't

A compressed sequence of ejective articulations that functions less like speech and more like a chain of rapidly triggered detonations.

Listening Notes

Ejectives are found in a variety of languages, particularly in parts of the Caucasus, Africa, and the Americas. To listeners unfamiliar with them, they often sound strangely artificial because they violate expectations established by more familiar pulmonic consonants.

That sense of artificiality became central to the identity of *Square-Wave Puncture*. The track repeatedly evokes electrical discharge, relay chatter, and systems operating beyond their intended tolerances. Each ejective functions like a tiny release of stored energy, puncturing the surrounding electronic textures with brief but forceful acoustic events.

Throughout the piece, the vocal articulations behave less like speech and more like a series of pressure spikes punching holes through an unstable electronic signal. The result is one of the album's most hostile and energetic encounters between phonetics and machine noise.

Track 9: Щёлк Квант Узел

By this point in the album, conventional pulmonic speech has largely been abandoned. *Щёлк Квант Узел* explores one of the most unusual mechanisms available to the human vocal tract: the click. Unlike most speech sounds, clicks do not rely on air being pushed out from the lungs. Instead, they are produced by creating a sealed pocket of low-pressure air within the mouth and then releasing it suddenly.

For many listeners, clicks are associated with paralinguistic sounds such as expressions of disapproval or the noises used to encourage horses. In reality, clicks form a fully developed part of the phonological systems of several languages, particularly in southern Africa.

The original intention behind this piece was to isolate these vacuum-release mechanisms and use them as the sole source of vocal articulation. The result is a track built from pops, snaps, and pressure collapses rather than conventional speech. Combined with the unstable electronic backdrop, the effect often resembles a malfunctioning relay array, a damaged telegraph system, or some unknown communication device operating under severe interference.

Representative Sound Fragments

Tutk → [l]

The dental click. Produced by sealing the tongue against the teeth and creating a vacuum within the

oral cavity before releasing it. English speakers often use a similar sound when expressing disapproval.

Cluk → [ɬ]

The lateral click. Air is released around the sides of the tongue rather than the centre. This articulation is commonly recognised as the sound used to urge a horse forward.

Xluk → [ɮ]

The palatoalveolar click. Formed by creating a broad seal against the roof of the mouth before releasing the trapped air. The resulting sound is deeper and more resonant than many other click types.

Qluk

A composite approximation intended to encourage the synthesis engine toward deeper click-like articulations and complex pressure-release events.

Listening Notes

Clicks occupy a unique position within the album because they are arguably the least "speech-like" sounds encountered so far. Removed from their linguistic context, they often resemble mechanical switching systems, digital glitches, or fragments of encoded communication.

The title *Щёлк Квант Узел* translates roughly as "Click Quantum Node" or "Click Quantum Junction," depending on interpretation. Whether intentional or accidental, the title complements the track remarkably well. The piece frequently evokes the image of information being routed through an unfamiliar system whose operating principles remain obscure.

Throughout the track, language dissolves almost completely into pure event structure. Every articulation is a pressure change, a switch activation, or a vacuum collapse. The result is less a vocal performance than a study of tiny acoustic explosions occurring within a sealed chamber of air.

Track 10: Hollow Drum Silence

Following the explosive pressure releases of clicks and ejectives, *Hollow Drum Silence* shifts attention toward double articulations: consonants produced through the simultaneous formation of two closures within the vocal tract.

Most speech sounds involve a single primary point of articulation. Labial-velar consonants are different. They require the lips and the back of the tongue to operate together, creating coordinated closures at opposite ends of the oral cavity. The resulting sounds often possess a weight and complexity that can feel unfamiliar to listeners whose native languages do not employ them.

For this piece, the electronic textures that dominate much of the album were deliberately abandoned in favour of sparse, abrasive acoustic sounds. Scraped strings, isolated impacts, and large areas of

silence create an environment in which the unusual geometry of the vocal articulations becomes easier to perceive.

Representative Sound Fragments

Kpa → [kp̚]

The voiceless labial-velar plosive. The lips and the velum close simultaneously before releasing together. This coordination produces a heavy, compact impact unlike either [k] or [p] alone.

Gba → [gb̚]

The voiced labial-velar plosive. Similar to [kp̚], but accompanied by vocal fold vibration. The result is a deeper, more resonant articulation with considerable acoustic weight.

Pk

A compressed sequence combining front and rear closures. While not a standard phonetic category, it was employed as a practical approximation to encourage complex closure patterns within the generated vocal performance.

Tk

A similarly non-standard cluster intended to reinforce the sensation of multiple articulatory events occurring in rapid succession.

Listening Notes

Labial-velar consonants are found in various languages of West and Central Africa, where they function as ordinary components of speech. Removed from that linguistic context, however, they often sound strangely mechanical. The simultaneous engagement of two distant regions of the vocal tract creates an impression of unusual internal complexity.

The title *Hollow Drum Silence* captures the character of the track remarkably well. The piece frequently alternates between dense articulatory impacts and large regions of empty acoustic space. Rather than filling the silence, the sounds seem to emerge briefly from it before disappearing again.

Throughout the track, the listener encounters a recurring tension between presence and absence. Heavy double articulations arrive like distant drum strikes within an abandoned structure, while the sparse acoustic environment emphasises the physicality of each individual vocal event. The result is one of the album's most restrained and spacious compositions, despite employing some of its most complex articulatory mechanisms.

Track 11: Rhad Vhad

After exploring simultaneous closures and double articulations, the project turns to one of the briefest and most elusive categories of speech sound: taps and flaps. Unlike stops, which involve a

maintained closure and pressure build-up, taps and flaps are produced through a rapid ballistic movement of an articulator. Contact occurs only momentarily before the articulator immediately rebounds.

Because these sounds are so brief, they often go unnoticed in ordinary speech. Many English speakers produce alveolar taps regularly without realising it, particularly in words such as *butter* or *better*. Isolated from language, however, taps and flaps reveal a distinctive acoustic character: neither sustained nor explosive, but fleeting and percussive.

For this piece, the intention was to build a vocabulary from these transient impacts alone. The resulting sound world is sparse, fragmented, and highly pointillistic. Rather than flowing continuously or striking forcefully, the articulations appear as tiny flashes of movement—acoustic events that exist for only an instant before vanishing.

Representative Sound Fragments

Rhad → [r]

The alveolar tap. The tongue tip executes a rapid strike against the alveolar ridge before immediately rebounding. This articulation appears frequently in many varieties of English, though usually unnoticed by speakers.

Vhad → [v]

The labiodental flap. Produced when the lower lip flips briefly against the upper teeth. This articulation is comparatively rare and possesses a distinctive elastic quality.

Thrad → [ɾ]

The retroflex flap. The tongue curls backward before sweeping forward in a rapid motion, producing a deeper and more hollow acoustic impact than the alveolar tap.

Listening Notes

Unlike many of the other phonetic categories explored throughout the album, taps and flaps resist sustained treatment. They are inherently momentary. Every articulation is a brief event rather than a continuous process. This limitation became one of the defining characteristics of the track.

The sparse acoustic environment reinforces this quality. Muted strings, isolated metallic impacts, and short-lived resonances mirror the behaviour of the vocal material itself. Nothing lingers for long. Sounds appear, make contact, and disappear.

The title *Rhad Vhad* emerged directly from the phonetic approximations used during construction and remains one of the album's most transparent labels. Throughout the piece, the listener encounters a landscape built entirely from fleeting encounters between articulators—tiny collisions that collectively form a strange and fragile rhythmic language.

In some respects, *Rhad Vhad* may be the most minimalist work on the album. Where previous tracks explored friction, pressure, vibration, or resonance, this piece is concerned almost entirely with contact itself: the brief moment when two surfaces meet before immediately separating again.

Track 12: Tilted Cymbal-Wind

Throughout much of the album, speech has been fragmented into impacts, closures, pressure releases, and mechanical articulations. *Tilted Cymbal-Wind* moves in the opposite direction. Here, the focus is on sustained sibilant friction: continuous streams of turbulent airflow shaped by the tongue and directed against the teeth.

Sibilants are among the most acoustically powerful consonants in human language. Their characteristic hiss is created by concentrating the airflow into a narrow jet before directing it onto a hard surface, generating intense high-frequency turbulence. Unlike many of the sounds explored elsewhere on the album, sibilants are capable of being sustained almost indefinitely, creating textures that blur the distinction between speech, wind, and noise.

The original experiment sought to emphasise voiced sibilants in particular. Rather than producing a whisper-like hiss, the goal was to combine friction with strong vocal fold vibration, creating a sound that remained forceful, resonant, and present within the mix.

Representative Sound Fragments

Sss → [s] / [z]

The alveolar sibilant fricatives. Air is channelled through a narrow groove along the tongue before striking the front teeth. The voiceless form produces a sharp hiss, while the voiced form adds a resonant buzz generated by vocal fold vibration.

Sssh → [ʃ]

The postalveolar sibilant. The tongue retracts slightly, broadening the resonant chamber and producing a deeper, more diffuse friction texture often associated with rushing air or distant surf.

Zzzh → [ʒ]

The voiced postalveolar sibilant. Similar in articulation to [ʃ], but accompanied by vocal fold vibration. The result is a dense, buzzing friction that combines turbulence with resonance.

Listening Notes

While earlier tracks often resembled machinery, pressure systems, or electronic malfunction, *Tilted Cymbal-Wind* frequently evokes natural phenomena. The sustained friction textures can resemble wind moving across exposed surfaces, waves breaking along a shoreline, or distant atmospheric noise.

This quality is reinforced by the sparse acoustic environment surrounding the vocal material. Rolling ocean-drum textures and brushed cymbal resonances create a backdrop in which the phonetic material ceases to sound linguistic and begins to resemble environmental sound.

The title *Tilted Cymbal-Wind* captures this ambiguity beautifully. The listener is never entirely certain whether the primary sound source is vocal, instrumental, or environmental. The voiced sibilants drift between these categories, producing a piece that feels less like speech and more like weather.

Among the album's many experiments, this track perhaps comes closest to demonstrating how a single phonetic category can generate an unexpectedly rich and immersive sonic landscape. What begins as a study of turbulent airflow gradually transforms into something resembling a natural acoustic ecosystem built entirely from controlled friction.

Track 13: Bronze Gong Moan

The closing piece explores pharyngealization: a secondary articulation in which a speech sound is produced simultaneously with a constriction of the pharynx. Unlike the primary articulations explored elsewhere on the album, pharyngealization does not replace an existing consonant. Instead, it alters and darkens it, changing its resonance and acoustic colour.

This phenomenon occurs in a number of languages, most notably Arabic and several languages of the Caucasus and North Africa. To listeners unfamiliar with it, pharyngealization often imparts a sense of depth, weight, and distance. Familiar consonants become transformed, acquiring an unexpectedly heavy and cavernous character.

As the final track on the album, *Bronze Gong Moan* was conceived as a descent into the deepest resonant regions of the vocal tract. Earlier pieces explored closures, clicks, trills, friction, and pressure release. Here, the focus shifts to resonance itself: the modification of sound by shaping the space through which it travels.

Representative Sound Fragments

$Z \sim Z \sim Z \sim Z \sim Z \sim \rightarrow [z^{\text{h}}]$

The pharyngealized voiced alveolar sibilant. A conventional voiced [z] is produced while simultaneously retracting the tongue root toward the pharyngeal wall. The result is a darker, heavier resonance than the ordinary consonant.

$Z \sim Z \sim Z \sim Z \sim Z \sim H \sim H \sim H \sim H \sim H \sim \rightarrow [z^{\text{h}}]$

The pharyngealized voiced postalveolar sibilant. The underlying friction remains recognisable, but the added throat constriction transforms the sound into something far more cavernous and imposing.

$R \sim R \sim R \sim R \sim R \sim \rightarrow [r^{\text{h}}]$

A pharyngealized alveolar trill or trill-like articulation. The rolling vibration remains present, but the additional pharyngeal constriction introduces a powerful sense of depth and compression.

Listening Notes

Unlike many earlier tracks, which derive their identity from clearly audible articulatory gestures, the defining characteristic of *Bronze Gong Moan* is resonance. The individual consonants themselves are often less important than the acoustic spaces created around them. The listener is encouraged to hear not only the sound, but also the chamber through which that sound appears to be travelling.

The sparse instrumental environment reinforces this perception. Massive bass-drum decays, resonant metallic groans, and vast regions of silence create the illusion of a huge acoustic volume surrounding the vocal material. The voice no longer behaves as a source of information. Instead, it becomes another resonant object within the soundscape.

The title proved an unexpectedly perfect conclusion to the project. Throughout the track, the pharyngealized articulations interact with the low-frequency acoustic textures in a way that genuinely recalls the slow decay of a struck bronze surface. Sounds seem to emerge from darkness, resonate through a vast space, and gradually dissolve back into silence.

As the penultimate piece on *ḏə kriptik lɪŋgwɪstɪk*, *Bronze Gong Moan* brings the experiment close to its logical conclusion. Language has been reduced to airflow, pressure, vibration, resonance, and physical gesture. What remains is not speech in the conventional sense, but a collection of acoustic phenomena occupying the uncertain territory between linguistics, sound art, and machine-assisted composition.

Track 14: P-Kay Prrrrrt (The Long-Form Pan-Phonetic Anarchy)

The Phonetic Constraint:

No longer constrained.

The preceding thirteen tracks each isolated a particular articulatory family and explored it under tightly controlled conditions. This final piece abandons that approach entirely. Ejectives, clicks, implosives, trills, taps, flaps, pharyngealized consonants, lateral fricatives, double-stops, sibilants, and several deliberately exaggerated transliteration systems are combined into a single extended sequence.

Every symbol is rendered as an English textual approximation rather than IPA notation. This is partly practical, but also intentional. The transliterations are designed to push the synthesis engine into engaging as many regions of the vocal tract as possible without relying on conventional words, melody, or linguistic meaning.

What emerges is less a phonetic category than a collision of categories.

The Musical Style:

Surrealist acoustic collapse.

The track abandons the laboratory precision of several earlier pieces and instead assembles an

environment of found sounds, mechanical objects, resonant metals, unstable acoustic spaces, and abrupt silences. Glass typewriters, dragging chains, ticking clocks, metallic impacts, and fragments of previous sonic experiments appear and disappear without warning.

There is no stable pulse, no harmonic centre, and no attempt to unify the material into a conventional composition. Instead, the track behaves like an archive that has begun to reorganise itself incorrectly.

Individual articulations emerge briefly before being overwhelmed by others. Previously isolated systems begin to overlap. Ejectives collide with clicks. Trills interrupt pharyngealized drones. Lateral fricatives bleed into sibilant streams. The distinctions that governed the earlier tracks become increasingly difficult to maintain.

The structure itself reflects this process. Early sections revisit individual phonetic families in relative isolation, acting as a condensed tour through the album's previous experiments. As the piece progresses, the boundaries separating those families become progressively weaker. By the final verses, multiple systems are operating simultaneously, creating a dense and intentionally unstable articulatory landscape.

In many respects, *P-Kay Prrrrrt* functions as a summary of the entire album. Every major technique explored elsewhere reappears in some form. The track serves as both a retrospective and a stress test, asking what happens when all of the project's phonetic machinery is activated at once.

The answer is not synthesis.

It is overload.

Rather than resolving the album's experiments into a coherent conclusion, the piece pushes them beyond the point where coherent classification remains possible. Transliteration systems collapse into one another. Categories lose their boundaries. The distinction between linguistic demonstration, sound art, vocal experiment, and machine misinterpretation becomes increasingly uncertain.

The final sections are therefore best understood not as a grand finale, but as a controlled containment failure.

Every mechanism remains active.

Nothing remains separate.

The project concludes not with resolution, but with overload.

Why Not Use IPA Directly?

Early versions of the project attempted to use IPA symbols directly as lyric material. In theory this would have provided the most accurate representation of the intended articulations.

In practice, the music-generation system struggled to interpret large quantities of phonetic notation. Raw IPA often produced inconsistent results, ignored articulatory distinctions, or was treated as arbitrary text rather than speech instructions.

To overcome this limitation, a system of transliterated sound fragments was developed. Sequences such as *Khakh*, *Bhgg*, *Qluk*, and *Zhlth* were not intended to represent words or an invented language. Their purpose was simply to encourage particular articulatory behaviours within the generated vocal performance.

The resulting forms should therefore be understood as performance prompts rather than phonetic transcriptions. They occupy a middle ground between notation, instruction, and experimental lyric writing.

Ironically, the inability to use pure IPA became part of the project's identity. The album ultimately documents not only an exploration of phonetics, but also a negotiation with the limitations of the generative system itself.

Appendix: A Very Brief Guide to the Sounds

The pieces on *ðə kriptik lɪŋgwɪstɪk* are built from phonetic categories rather than words. While no specialist knowledge is required to enjoy the album, a basic understanding of how speech sounds are produced may help explain some of the stranger textures encountered throughout the recordings.

Place of Articulation

Speech sounds are created by modifying airflow at different locations within the vocal tract.

Location	Typical Sounds
Lips	p, b, m
Teeth	f, v, θ
Alveolar Ridge (behind the teeth)	t, d, s, z
Hard Palate	j
Velum (soft palate)	k, g, x
Uvula	q, χ
Pharynx	ħ, ʕ
Glottis	h, ʔ

As sounds move further back into the throat, they often become darker, rougher, and more unfamiliar to English-speaking listeners.

Manner of Articulation

The location of a sound is only part of the story. Equally important is what the airflow is doing.

Stops (Plosives)

Airflow is completely blocked and then suddenly released.

Examples:

[p] [t] [k]

These create the impact-like sounds heard throughout *Puk Tuk Diagnostic*.

Fricatives

Air is forced through a narrow gap, creating turbulence.

Examples:

[s] [ʃ] [x] [χ]

These generate many of the scraping and hissing textures heard elsewhere on the album.

Approximants

The articulators approach one another without creating significant turbulence.

Examples:

[j] [w] [l]

These produce the smoother, flowing sounds explored in *Wlly-llw Glitch*.

Trills

An articulator vibrates repeatedly in the airflow.

Examples:

[r] [ʀ] [ʁ]

These form the mechanical rolling textures heard in *Film Projector Fire*.

Unusual Sounds Featured On This Album

Clicks

Clicks are produced by creating a pocket of low-pressure air within the mouth and releasing it suddenly.

Unlike most speech sounds, clicks do not depend on air being pushed out from the lungs.

Examples:

[ɭ] Dental Click

[ɮ] Lateral Click

[ɥ] Palatoalveolar Click

Featured prominently in *Щёлк Квант Узел*.

Implosives

Implosives are produced by lowering the larynx while maintaining a closure in the vocal tract.

This creates an inward-moving airflow.

Examples:

[ɓ] Bilabial Implosive

[ɗ] Alveolar Implosive

[ɟ] Palatal Implosive

[ɠ] Velar Implosive

Featured in *Digital Stomach Growl*.

Ejectives

Ejectives are produced by trapping air between a closure in the mouth and a closed glottis before compressing and releasing it.

Examples:

[pʼ]

[tʼ]

[kʼ]

These sounds often resemble miniature explosions.

Featured in *Square-Wave Puncture*.

Lateral Fricatives

Most fricatives direct air along the centre of the tongue.

Lateral fricatives direct air around the sides instead.

Examples:

[t]

[k]

To many listeners they resemble escaping steam, rushing wind, or pressurised air systems.

Featured in *Hulth Zhlth*.

Uvular and Pharyngeal Sounds

These articulations occur at the extreme rear of the vocal tract.

Examples:

[q]

[χ]

[ħ]

Because English largely lacks these sounds, they often create the impression of an unfamiliar or fictional language.

Featured in *Khakh Xhax Qhaq*.

Labial-Velar Consonants

These require simultaneous closures at the lips and the back of the mouth.

Examples:

[kp̠]

[gɓ]

The resulting articulations often sound unusually heavy and complex.

Featured in *Hollow Drum Silence*.

Taps and Flaps

These involve a single rapid contact between articulators.

Examples:

[ɾ]

[v̩]

[ɾ]

They are among the shortest speech sounds humans produce.

Featured in *Rhad Vhad*.

Pharyngealization

Pharyngealization is a secondary articulation created by retracting the tongue root toward the pharynx while producing another consonant.

Examples:

[zˤ]

[ʒˤ]

[rˤ]

The effect is to darken and deepen the sound, adding a heavy, resonant quality.

Featured in *Bronze Gong Moan*.

Closing Remarks

ðə kɾiptɪk ɪŋgwɪstɪk began as an attempt to construct music from phonetic categories rather than words. The experiment quickly revealed an unexpected tension: phonetics are not naturally musical, while music-generation systems are reluctant to abandon musicality entirely.

The resulting recordings occupy an uncertain territory between linguistics, sound art, machine interpretation, and experimental composition. Some tracks approach speech. Others approach machinery. A few drift so far from both that they become something else entirely.

Whether heard as language, noise, music, or a collection of acoustic curiosities, the sounds presented here originate from the same remarkable instrument: the human vocal tract.

No actual language is spoken on this album. Any resemblance to existing languages, dialects, words, phrases, incantations, eldritch summoning rituals, or malfunctioning household appliances is entirely coincidental.

Compiled in support of *ðə kɾiptɪk ɪŋgwɪstɪk*, 2026.