

Exploring the Prehistoric

'Jurassic 2' Commentary

By Jamie Hancock



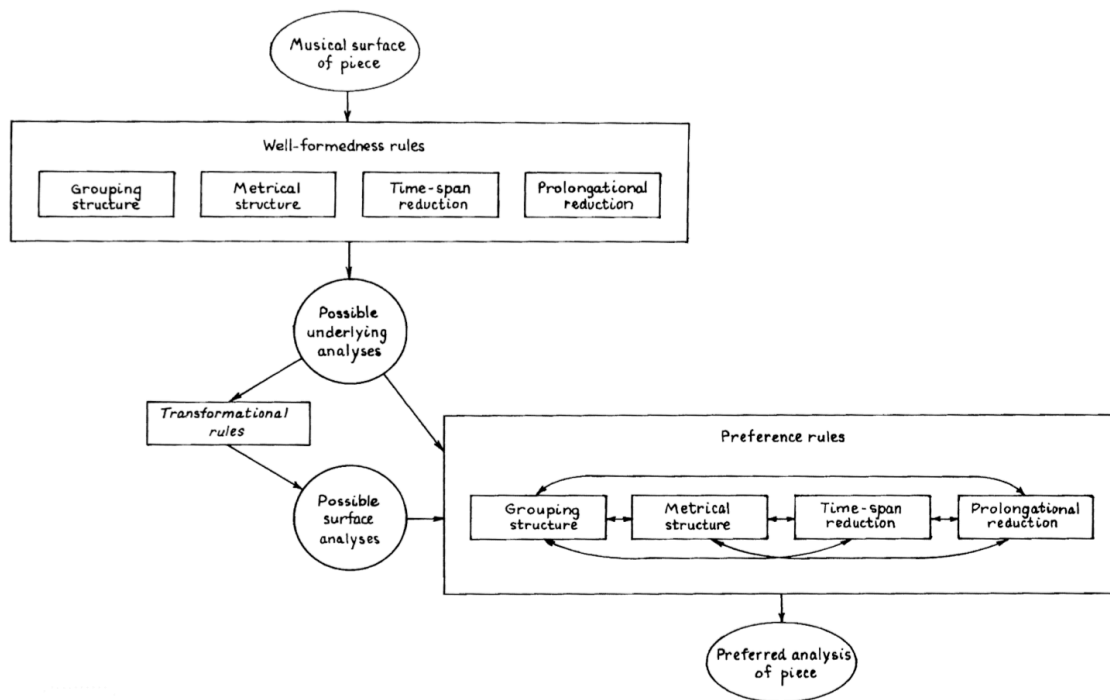
Commentary

The Timing of Each Section - Minutes and Seconds - in 'Jurassic 2'

- 'Jurassic 2' opens with a notated Introduction played on solo bass clarinet.
- The notated Grouping Structure section for solo bass clarinet starts at 1 min 11 secs.
- The first improvised section of bass clarinet with live electronics generated through Jamie operating his hacked version of Kai Siedenburg's granular synthesis feedback patch in Max/MSP on a laptop starts at 2 mins 32 secs.
- The notated Prolongation Reduction section for solo bass clarinet starts at 5 mins 23 secs.
- The second improvised section of bass clarinet with laptop starts at 7 mins 17 secs.
- The notated Metrical Structure section for solo bass clarinet starts at 9 mins 50 secs.
- The third improvised section of bass clarinet with laptop starts at 10 mins 48 secs.
- The notated Outro for solo bass clarinet starts at 15 mins 50 secs.

'Jurassic 2'

Theoretical principles with regard to genera and segmentation can be adopted and modified with a view to both analysing experimental/electroacoustic music and establishing a model for compositional practice to create such music. This is the case with 'Jurassic 2'. The most pertinent theoretical influence on the model for compositional practice for 'Jurassic 2' is the diagram below taken from *A Generative Theory of Tonal Music (GTTM)* by Fred Lerdahl and Ray Jackendoff.



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In the *GTTM* diagram above there is the musical surface of a piece, which means the music as it is, without individual interpretation.² There are four ‘well-formedness rules’ that represent different types of musical thought. This then leads to establishing ‘preference rules’, ‘which designate out of the possible structural descriptions those that correspond to experienced listeners’ hearings of any particular piece.’³ And from there you arrive at the ‘preferred analysis of piece’. Aspects of the design and visual presentation of the Max/MSP patch used for ‘Jurassic 2’ have been inspired by *GTTM*. As with the diagram above there is a hierarchy in terms of the most salient feature in a piece of music coming out on top as the ‘preferred analysis of piece’, in this this patch, used for the improvised sections, there is a buffer hierarchy, where the recording of acoustic sound and subsequent playback in processed form occurs 3 times, each occasion decreasing in length compared with the last. And as in *GTTM*, experienced listeners’ hearing of a piece designates the hierarchy of preference rules forming the ‘preferred analysis of piece’, in the improvised sections of ‘Jurassic 2’ the bass clarinettist is listening to, responding to and interacting with the computer part. The ‘transformational rules’ featuring in the diagram above are for when there is a need to ‘apply certain distortions to the otherwise strictly hierarchical structures provided by the well-formedness rules’⁴ as they are not able to express some musical phenomena, for example, elisions. Similarly, the patch used for ‘Jurassic 2’ has an additional feature, that could for example be used to assign a higher number of voices, richer texture and so on. It is for optional use by the performer should they feel inclined towards a musical direction that requires greater and perhaps more prolonged processing. It is unlikely this will be used in the main and so could be regarded more in terms of

¹ Fred Lerdahl, Ray Jackendoff, *A Generative Theory of Tonal Music* (Massachusetts Institute of Technology, 1983), 10

² Lerdahl, Jackendoff, *A Generative Theory of Tonal Music*, 3

³ Lerdahl, Jackendoff, *A Generative Theory of Tonal Music*, 9

⁴ Lerdahl, Jackendoff, *A Generative Theory of Tonal Music*, 11

Lerdahl and Jackendoff's 'transformational rules'. The 'parameter presets' labelled on the picture of the patch involve specifying the following (not an exhaustive list): number of voices, wave length, wave length variation, wave position, position variation, note transposition using the keyboard-like feature that can also add greater texture, panning, synthesis volume and input/output levels.

The patch does allow for this model for compositional practice/framework of rules to be broken and interfered with if it seems fitting to do so. Perhaps a certain section calls for more development, and in this case it could be extended. Although timings do not have to be adhered to rigidly, a sense of the hierarchical shape should be evident.

The notated score is also inspired by the *GTTM* diagram above in that it is structured with sections taking their title from the *GTTM* diagram.

- 'Grouping structure', this is the hierarchy of motives, phrases and sections.
- 'Prolongation reduction' also in terms of hierarchy, this is about revealing in complex events the essential harmonic and melodic tension and relaxation, continuity and progression.
- 'Metrical structure' is a hierarchical pattern of beats/rhythm to which musical events can be related.

Under the three main sections of the piece, at notated points and during moments of improvisation, various extended techniques are used to enhance the music. Below a selection of these are arranged according to appropriateness for each section, these are not prescriptive categories, just a suggestion and they may be used as much or as little as desired:

Grouping

- multiphonics and overtones
- quarter tones
- growl
- microtones, pitch bends and smear sound

Prolongation

- breathy, sizzling, soft playing to that which is more audible
- flutter tongue, loud dynamics
- circular breathing

Metrical

- hum and play, beating sounds
- throat tremolo
- smorzando
- slap tongue, perhaps low register
- key rattles and also only using keys to produce softly the pitch of the instrument
- small scale, very short, micro rhythms – loosely inspired by the fluctuation of sound particles in granular synthesis

Illustration of the patch

The interface is divided into several functional areas:

- Top Section:** A large blue grid with vertical lines, likely representing a piano roll or a sequence editor.
- Input Section (Left):** Includes a 'dac~ 1 2' label, 'input on/off ch 1 / ch2' with two checkboxes, and three vertical sliders for 'input ch1 / ch2'. Below this is a 'master out' slider and another 'dac~ 1 2' label with a red indicator.
- Volume Section (Left):** A 'synthesis volume' slider set to 1.
- Transformational Rules Section (Center):** A 'Transformational Rules' box with three numbered buttons (1, 2, 3) and several numerical input fields (e.g., >0 >0).
- Record/Playback Section (Center):** A series of vertical bars labeled 'Record' and 'Playback' for three different tracks.
- Control Section (Right):** Includes a 'read' button (read directly into buffer), a 'writewave' button (write buffer to file), checkboxes for 'rec into buffer on/off', 'loop rec on off', and 'GranSynth Feedback' (set to 10).
- Keyboard Section (Right):** A piano keyboard graphic with a 'clear all pitches' button.
- Parameter Section (Right):** A 'no transposition' label and five vertical sliders labeled 'w-pos', 'pos-var', 'w-length', 'length-var', and '# voices'.
- Footer (Right):** A 'panning' slider set to 0 and 127, and a 'carefully press to launch process...' button.

clear all pitches

- LEGEND**
- 1. external input on/off
 - 2. record on/off
 - 3. record/stop on/off
 - 4. direct granular synthesis feedback on/off
 - 5. granular synthesis parameters

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carefully press to launch process...

