For the anthology FORM, Pfau Verlag, 1999 Tom Johnson

On Form

For me the most important aspect of form is the relationship between the microcosm and the macrocosm. How do the details relate to the whole? What does the cell of the frog have to do with the frog? How do genes relate to individual human beings, stars to galaxies, soldiers to armies? This is a universal question, and no less important in music than elsewhere. What do individual notes have to do with the overall progress from the beginning to the end of a composition?

It is probably Heinrich Schenker who listened to music most carefully in this way, and his analyses of the music from Bach to Brahms in terms of foreground, middleground, and background are now a standard part of the curriculum in most music theory programs. But of course, things are often strucured on more than three levels, and this has become particularly clear in recent mathematics: fractal structures, logical automata, recursive functions generating level after level, geometries within geometries.

Much of my work, at least since the *Rational Melodies* (1981), has been concerned with layers of logic, and often I structure a single musical idea on different levels through logical techniques, many of which are described in *Self-Similar Melodies* (Editions 75, 1996). I may begin with an overall three-part structure, which then breaks down into 9 sub-parts, 27 sub-sub-parts, 81 sub-sub-sub-parts, and so on, or may begin with just one phrase, that then branches out into groups of phrases and groups of groups of phrases.

In cases like *Narayanas Kühe* (1989) and *Six-Note Melody* (1986) and the *Formulas for String Quartet* (1994) one level is completely determined by another, according to rigorous logic, in cases like *Dragons in A* (1979) and the new *Loops for Orchestra* (1999), the multi-leveled organization leaves some room for arbitrary variation, and in cases like *La Vie es si courte* (1998), the micro-macro relationships are little more than a constraint, around which I compose rather freely. Then there are cases like the *Tango* (1984), which is strictly logical, but which runs through its permutations really on only one level, though the piece is clearly heard in five sections, 20 subsections, and 120 phrases. So finally, what I am saying about microcosm and macrocosm is realized in many different ways, because each piece must have ist own form, if it is going to have an interesting personality of ist own. There are no rules.