from Speculative Computing: Instruments for Interpretive Scholarship (crazy Nowviskie PhD thesis, 2004)

IMAGINARY SOLUTION #1: Dr. Kremlin's Disc

Introduction:

"Dr. Kremlin's Disc" is a multi-player game of specification, association, and interpretation, in which participants cooperate to create and maintain elaborate relational idea-structures. It draws on three ludic traditions that emphasize interpretive flexibility and the free play of allusion but nonetheless require their players to explicate all objects of interest ("primitives" or manipulables) and to express those objects' behaviors and interrelations in nearalgorithmic terms. These three ancestors are Ramon Llull's generative *Ars Magna*, the Glass Bead Game of Hermann Hesse's *Das Glasperlenspiel* (described by Hipbone creator Charles Cameron as a "game designer's holy grail") and Peter Suber's emergent "game of amendment," *Nomic*. Like them, this game is fundamentally cooperative and performative in nature, but nothing in its structure prevents it from evolving in carnivorous ways.

The notion of ludic evolution comes to "Dr. Kremlin's Disc" from *Nomic* (described in Chapter III.E below) and, as in that game, the ruleset governing play is open to regular reinterpretation and amendment by players. The "glass bead" connection is realized in the game tokens this document recommends and in the basic mode of play it outlines, which draws on Hesse's allusive ludology. Finally, the debt to Llull is immediately evident — not least in the layout of its revolving playing board — but "Dr. Kremlin's Disc" owes its name (along with a few optional end-game pressures) to a terminally shocking device in Marie Corelli's theosophical triple-decker, *The Soul of Lilith* (1892):

The singular object that at once caught and fixed the eye in fascinated amazement and something of terror, was a huge Disc, suspended between ceiling and floor by an apparently inextricable mesh and tangle of wires. It was made of some smooth glittering substance like crystal, and seemed from its great height and circumference to occupy nearly the whole of the lofty tower-room. It appeared to be lightly poised and balanced on a long steel rod, — a sort of gigantic needle which hung from the very top of the tower. The entire surface of the Disc was a subdued blaze of light, light which fluctuated in waves and lines, and zig-zag patterns like a kaleidoscope, as the enormous thing circled round and round, as it did, with a sort of measured motion, and a sustained solemn buzzing sound. Here was the explanation of the mysterious noise that vibrated throughout the house, — it was simply the movement of this round shield-like mass among its wonderful network of rods and wires. Dr. Kremlin called it his "crystal" Disc, - but it was utterly unlike ordinary crystal, for it not only shone with a transparent watery clearness, but possessed the scintillating lustre of a fine diamond cut into numerous prisms, so that El-Râmi shaded his eyes from the flash of it as he stood contemplating it in silence. It swirled round and round steadily; facing it, a large casement window, about the size of half the wall, was thrown open to the night, and through this could be seen a myriad sparkling stars. The wind blew in, but not fiercely now, for part of the wrath of the gale was past, — and the wash of the sea on the beach below had exactly the same tone in it as the monotonous hum of the Disc as it moved. At one side of the open window a fine telescope mounted on a high stand, pointed out towards the heavens, - there were numerous other scientific implements in the room, but it was impossible to take much notice of anything but the Disc itself, with its majestic motion and the solemn sound to which it swung. Dr. Kremlin seemed to have almost forgotten El-Râmi's presence, — going up to the window, he sat down on a low bench in the corner, and folding his arms across his breast gazed at his strange invention with a fixed, wondering, and appealing stare.

"How to unravel the meaning — how to decipher the message!" he muttered — "Sphinx of my brain, tell me, is there No answer? Shall the actual offspring of my thought refuse to clear up the riddle I propound? Nay, is it possible the creature should baffle the creator? See! the lines change again — the vibrations are altered, — the circle is ever the circle, but the reflexes differ, — how can one separate or classify them — how?" (Corelli 122-7)

The connection of this crushing Correllian brain-Sphinx to the game will be clarified under "The Kremlin Factor," below.

Requirements:

People. This is a multiplayer game. Solitaire is possible, but is not recommended, as it may lead practitioners to an inflated self-opinion. Likewise, odd numbers of players may participate, and (with some obvious rule modifications) in unlimited numbers, but "Dr. Kremlin's Disc" is optimized for two or four players or teams. *Glass Beads.* Players need a minimum of 28 small, manipulable tokens, such as marbles or beads — preferably distinguishable in terms of color, size, or shape. Any objects are acceptable, so long as they fit on the device. *The Device.* The game board or disc itself (as described below). *Extra Stuff.* Players may find scratch paper and writing utensils helpful. More beads or tokens may be needed for some versions of the game. Game discs made (optionally) of slate call for chalk rather than beads. Other assistive technologies (like six-sided dice) may be called for by player modifications to the ruleset.

The Device:

The game board, like the famous "Fourth Figure" of Ramon Llull's *Ars Brevis*, consists of three interlocked rings, each separated into box-like compartments or "camarae" capable of holding game tokens in place. The outer ring, with 16 small camarae, is fixed, but the two inner rings, with 8 and 4 larger camarae respectively, are removable and can rotate freely. At the very center of the ring-structure is a small dish or container (a "pivot") that holds all the game's beads at the outset of play. If gameplay with beads (an aesthetically pleasing but very challenging *memoria technica*) is not desired, the device can be made of chalkboard, whiteboard, or even paper — any surface fit for writing. In this case, box-like compartments are not needed, but the board should still be divided into 28 camarae as specified in the following diagram:



Playing the Game:

Players predetermine a topic or scope of play (generally some humanistic subject matter they wish to interrogate using this ludic method), or they agree to let that topic emerge in the early course of the game. The central dish or pivot is filled with beads, the two inner wheels are removed from the board, and gameplay proceeds in three stages.

Stage One.

Each player simultaneously chooses a bead from the pivot, names it for a person, place, object, or concept he wishes to have "in play," and then places it in one of the camarae of the outer ring, making sure — in this opening move — that no two beads are adjacent. (Adjacency is to hold special meaning in the game.) Novice players particularly should record the meanings assigned to each bead and may find a graph of the playing board helpful for charting bead positions.



When all players are satisfied that they understand (at least in a general way) the intended semantics of the beads, a joint decision is reached as to syntactic relations among beads that will be deemed acceptable at this stage. A beginner's version of "Dr. Kremlin's Disc" should limit syntax to adjacency and deem valid any relationship — allusive or direct — that a player can articulate to the satisfaction of others. (More complex versions of the game can limit the nature of valid relationships in any number of ways or enable syntactic relations that go beyond mere bead adjacency.) Play then proceeds in turns, with players naming and placing new beads, which can now be adjacent but must follow agreed-upon rules of syntax. In other words, a player may place a new bead ("Helen of Troy") next to an existing one ("olives"), but only if he can define a relationship between them (perhaps citing H.D.'s poem, in which Helen becomes a Greek marble: "the lustre/ As of olives where she stands/ And the white hands...").



If a bead is placed between two occupied camarae, its relation to the beads on either side must be specified. Play continues until the outer wheel is full.

Stage Two.

The middle wheel is added to the board and aligned to the outer wheel such that each of its eight camarae encompasses two outer-wheel camarae (now filled with beads). Players decide whether the same syntactic rules apply as in the outer circle, or if beads must be placed in some new relation here. Play then proceeds in turns, with players placing new beads in relation to each other around the middle ring and to any adjacent beads in corresponding outer camarae.



This continues until all camarae in the middle wheel have been filled.

Stage Three.

The inner wheel is placed on the game board so that each of its four camarae corresponds to two camarae in the middle wheel. Again, players make a determination as to appropriate syntactic rules (perhaps altering a previous formula to change the game's level of difficulty, to mirror practices in a specific humanities discipline, or to add constraints they find fruitful in thinking through their game's subject domain). Play proceeds in turn, this time even more tightly constrained, until the inner wheel is filled with beads placed in relation to each other and to beads in the middle wheel.



The entire disc is now traced over with a delicate structure of ideas and interactions, and — if players so desire — the game can come to an end. By other standards, however, "Dr. Kremlin's Disc" has just begun.

		RELATIONS		
CAMA	RAE	IN PLAY		TOTAL
16	Outer	2	outer	3
8	Middle	4	Mildle	5
4	Inner	4	Inner	4

The Kremlin Factor:

El-Râmi Zaranos, of Corelli's *Soul of Lilith*, is a handsome Egyptian count with an astrallyprojecting teenage brother and an undead Gypsy in his London townhouse, — but that's neither here nor there. The important thing, to his old friend Dr. Kremlin, is that he possesses an Elixir of Life. Years ago, El-Râmi helped Kremlin obtain the mysterious mineral of which the ancient scholar's huge, heavy, precariously-balanced disc is made, a mineral that absorbs and reflects starlight in intricate patterns begging elucidation. Kremlin has spent one lifetime analyzing his particular brand of Llullian wheel, and he knows he needs a few more to finish the job. He is therefore delighted when El-Râmi offers him a draught of the elixir, and wakens the next morning with a spring in his step and a healthy appetite, which gratifies his long-suffering German manservant, Karl. Karl has not much longer to suffer, however, because Dr. Kremlin's enthusiasm for disc-interpretation exceeds his good sense, and the old man remains in his tower in spite of some sort of tropical monsoon that suddenly batters the Irish coast. In true Corellian overkill, the good doctor is both struck by lightning in the storm *and* crushed to death by the toppling of his enormous, inscrutable disc.

Unlike Dr. Kremlin, "Dr. Kremlin's Disc" is designed for extended play. Only a few game extensions are described here, but players are enfranchised to create their own modifications, exploiting the basic affordances of the game's board, its token set, and the ludic algorithm that governs interpretive play.

Some game sessions may profit from particularly Kremlinesque pressures, including: a set time limit for player moves (or for completing each ring of the disc); the incorporation of random events (such lightning strikes as bead swapping or disappearance, dictated by a roll of the dice); or balance-dependent gameplay, in which the camarae of the disk must be filled up in parallel patterns. All of these extensions add the pressure of collapse to "Dr. Kremlin's Disc."

Gameplay red in tooth and claw is another option (not necessarily only suited to competitive modes of play) in which players may wish to allow the capture or forced migration of beads according to pre-defined Darwinian laws. Similarly, a game of condensation might hinge on rules for gathering beads together from adjacent camarae under strict conditions of association. And of course, true Llullian games will incorporate the spinning of the disc's two inner wheels, together with rules that specify the circumstances and consequences of such an act. What is the purpose of a spin? How should the syntactic connections broken by the spin be handled? For instance, are players responsible for "repairing" them through inventive allusion and reinterpretation of the beads? Are links that break indicative of faulty beads and weak ideas — or do they represent the "exceptions" that shape a 'patacritical science?