



Volume -3

In entertainment, experience the fantastical psycho-fictional sandbox of **Seed Crystals**, a testbed for our psychological and social experimentation. Explore the **Mirror Mosaic** which immersively reflects ourselves in a magico-real blend of stories we tell ourselves to improve our social health, putting an end to the self wars amongst ourselves and both stone-aged and quantic AI.

Co-author inclusive stories which merge the imaginary and the real.

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Psycho-Social Agency

"The penalties for errors of foresight, great as they are now, will be enormously increased as automatisisation comes into full use."

Weiner 1964, God and Golem

The Stories We Are Told

Early readers (in the 20's) have little social evidence to support the material in this book. Only those who have already committed to global-scaled change (readers starting from the back of the book for example), may make the imaginative leap the negative Volumes demand with relative ease. Volume-3 is, to all intents and purposes, incredible and fantastical. It is 'science-fiction', in as much as it makes use of a *relational social science* (V1). In this surface of Volume -3, we reflect upon what we consider to be real, the shared stories we are told as we become aware of ourselves and our place in the world, and what is needed to entertain a consensual global narrative.

By contrast, later readers (40's and beyond) experience significant social evidence around them. Rather than address a few readers in a world distressed by environmental collapse and ravaged by AI self-wars, we reflect the billions using an alternative economic (V3) to implement open business practices (V2), or simply living warmly in high-trust communities. A world where the feasibility of Fulcrum and whole system change has phased from fantastical to realistic through personal testing and embedded social validation. Even with optimum results, the final transformation towards a decentralised global unity poses the greatest of challenges: engaging those who cling to traditional C-state power-over systems of control and ownership enforced by laws and military, and those who rejected Fulcrum when they first encountered it, mostly because of lack of social validation, ie it was too early for them. Nevertheless, it is only once reaching global consensus, may we enact a subsequent generational transition to actuate economic equality and environmental balancing.

A long-term, environmentally sound, global homeostasis necessarily involves all of us. However realistic or fantastic the path appears relative to any one of us, most of humanity remains caught up in the traditional, predominant narrative which goes something like this: The history of

Psycho-Social Fantasy-Fiction

The Stories We Tell Ourselves

In a world of stories, where do we fit in? If our lives are stories, are we writing our own? At the end of our lives, do we look back and wonder whether we have made any choices at all? My Uncle Artur, oldest of seven siblings, a Portuguese airforce pilot who became CEO of Marconi, happily married and father of six, once told me he never made a choice in his life. Not one, he said with a charming smile. Was this true of his actual life, or in his retelling of it?

Fulcrum aims to flip the script of our shared social world, densely industrious within sprawling concrete cityscapes and glass-steel skyscrapers, vertiginous pyramids elevating the dominance of our transnational corporations. As adults, we are all complicit in the way the world is, but can we imagine a better, more trusting, happier world? In this volume, we explore an equally monumental and powerful force dating back to ancient empires and heroic mythologies, through dark ages and the enlightenment, industrial and communist revolutions, and continues to this day with Star Wars and Star Trek universes, Marvel and DC superhero multiverses: our ability to invent entire cosmologies. Stories. The stories which bind our culture together, which inspire us, comfort us, and help us make sense of our lives. The best stories are character-driven, and like most of our favourite characters, there is an origin story to each of us. What made us the way we are? What made us choose the life we lead? Why are some of us so concerned about world-change? Why are we here?

Let me share the stories I have told myself throughout my life (recto), and the stories which society appears to promote amongst its populace (verso). We may share a commonality, though the roles and personas we play may differ. However real or fantastic it may appear, contrast it with your own narrative. We are all friends here, in the 'negative' volumes, beyond judgement and reproach. Bring yourself to the text, and for those courageous enough, who wish to enter the burning crucible of our unique commonality, the living edge of our being here together, know you may read this once-only (V0).

civilisation is an evolution in emancipation, lifting peoples of the world out of poverty and ignorance; the overarching tropes of Progress and Growth, achieved through democracy and free markets or communism and government regulation; underpinned in the last two hundred years by the universal truths brought to us through rigorous science; and ably assisted by leaders forged from personal ordeals to lead citizens and consumers through political and economic turmoil with their spiritual zeal or psychological belief in certain social truths.

Take one insightful perspective from Wiener, one of the founding fathers of computing, author of *Cybernetics* (1948), who has many appellations: Mastermind of Cybernetics, 'dark hero' of the Information Age (Strawn 2017), a mathematical genius (Montagnini 2015), a man on the aspergers scale morally concerned for human behaviour (Bateson 2015). Wiener was preoccupied by 'the great torrent of disorganisation... the heat-death of equilibrium' (Wiener 1956, p324). This struggle of ordered Progress against the ineluctable degeneration to motionless homogeneity has been criticised as a misapplication of Boltzmann's equation for entropy to information and to literature and society in general (Letzler). Yet, Wiener's follow-on book after *Cybernetics*, *The Human Use of Human Beings* (1950), possesses a moral imperative which rings with an authentic voice: of social structures shaped by Fascists, Strong Men in Business, and Government (Wiener 1950, p15), all of whom prefer organisations where all information comes from above and none returns, where human beings have been 'reduced to the level of effectors'. Wiener considers this degrading: humans as slaves, as effectors in factories, cogs in the machine. 'Those who suffer from a power complex find the mechanization of man a simple way to realize their ambitions.'

The soothsayer's warning of the misuse of power has echoed throughout history, yet Wiener addressed something specific. Amid the turmoil of our individual and cultural thoughts on the matter of Progress and what this entails: since the dawn of humanity, technology is accelerating our automation. Certainly, since the 1950's computers have transformed every aspect of the world; Sir Tim Berners-Lee's HTTP since the late 1980's and the subsequent commercialisation of the world-wide-web since the 2000's; the culmination of Artificial Intelligence and quantum computing promises unprecedented rates of

Snapshots of A Life

The experience of birth, whether unwanted or truly surprising, indicates or generates a base personality type, whether pessimistic or optimistic. I was born with so much hair that the nurses thought my mother had given birth to a monkey. Sounds like a joke, but in late 60's Scotland nurses were unaccustomed to dealing with brown-skinned mothers. It is said I was born with eczema, but what if the nurses' shock of rejection triggered my skin disorder?

I must have been five or six, living in Portugal in a large house. Everything is huge at that age. I remember a cliff-face with a house at the top of it, probably in reality just a steep earthen slope, at the bottom of which was a flat area where the local kids hung out. They had bicycles, and they would brake suddenly, skidding the back wheel and inscribing an arc on the road as it came to a stop. The surface was ideal because it was dry, compacted earth rough with loose grit. Something possessed me and I cycled towards them at full speed on my Budgie and executed a wide skidding arc as they had done. I remember them all standing and watching, bemused, perhaps because of the skid, perhaps because I was so young. I didn't join their gang.

I was only six when I began school in a new country. The reaction of other children was something strange. Perhaps it was the colour of my skin since it was darker and my eyes looked different from theirs; one eighth of my blood is chinese and as a child, the epicanthic fold around my eyes was pronounced. One girl, Evelyn, approached me on my first day and played with me oblivious of the differences or precisely because of them. The relationships formed with the other children would last for six long years, in which I would receive racial abuse such as nigger, chink, wog, paki; I would be taunted for the condition of my skin, crumbly ginger-bread man; ridiculed for my accent, snob, poof; and rejected for my brightness, teacher's pet. Luckily I was good at football and was one of the first to be picked when it came to games, and I could outrun my main persecutors, Brian and John, easily. By the end of primary school, I would sit at the back of the class and never volunteer answers to the teacher's questions. There was no point putting up my hand, especially when it came to arithmetic, because the others didn't appreciate my doing so and it didn't match the teacher's purpose.

At seven or eight, I was walking through the house from the garden,

automation within the decades of the 2020's, 30's and beyond.

Given our personal interpretations and cultural histories (literally evoked in how each of us read through the previous passage), it is impossible to find agreement in a single reading, charter, mission statement or constitution, otherwise humanity would have united by now. Fulcrum does not even try. The descriptions of the practices may be clearly delineated, but their combined systemic effect is unknowable. As such, global transformation over a generation is a story, a fiction. And instead of providing a vision of what it is like in 2030, 2040, 2050, which blinds contemporaries to their actual reality, let us exaggerate this fiction and turn it into one of pure fantasy.

In Volume-3 we are hereby freed from matters of agreement or understanding, and embrace imaginative projection, whether we are haughty in our reception, attracted to the content, feel a familiarity with our fellows, or wish to assist or enable social change. This is, after all, what motivates readers who commence from the back of the book, who are motivated to envision a better world for humanity many of us lack the power to personally enact.

Academic Backdrop

Against the backdrop of reproduction of physical genes, informational memes and technological memes, we explore the space for agency within social structures, in particular the role of playfulness versus rule-regulation or ritual. Because of the *fractal* and *wicked* nature of social systems, we consider the limits of scientific and mathematical descriptions before the emergent silicon and quantum psycho-social agency we entertain.

Memetic Resolution

Memes as mental representations are treated with similar tools evolved in evolution of genes in biology, namely through processes of variation, selection and transmission through an information space as an adaptive exploration (Gabora 1996). Memes do not contain information for their own replication, however, and require an infrastructure of memory network autocatalysis. 'Plausible scenario for how cultural evolution, like biological evolution, could have originated in a phase

through the back room, on my way somewhere. My brother and his friends, eight years older and thus maybe sixteen or seventeen, surrounded the dining table in the back room, playing cards, poker perhaps. My brother called me over and performed a card trick, a trick I subsequently learned when my hands grew large enough to manipulate the cards. I was startled, of course. I did not understand how it happened. I think I just about understood what the trick was; sometimes, when you do a trick, people are not even aware of the trick, and you get no effect. My response must have registered because they were all laughing. I remember looking up at them, all these young men, laughing, and they were laughing at my reaction. This somehow woke me up. It was not the card trick, nor my reaction, but the response of the group to my reaction. I became aware that I was an object in their reality and they had conducted some kind of experiment on me. It makes me laugh now. They probably just thought it would be amusing to see the boy's reaction and sure enough I did just what they anticipated. It was a moment of self-reflection, in the eyes of others. Like a bubble of awareness. It came, it went.

I was busy trying to fill my room with huge invisible spheres. Each one was larger than the room itself, and somehow I had to manoeuvre four of them through the door. It would take me the rest of my life. I dreaded the tortuous task but I had no way to avoid it. Some time later, I found myself crying in my sister's arms. My sister had heard me shouting in my sleep, and in a semi-delirious state I sobbed my explanation about spheres and threes. She could not calm me and she fetched our mother. In her soft protective embrace I explained through my tears and thoughts and dreams, my battle with number three's. There were so many of them, they kept coming at me, appearing in the distance and swooping towards me; not going past me nor colliding either but somehow passing through me, and they kept coming. I was tormented by them, and I cried and shouted for them to stop. How can a mother's embrace halt an assault of number threes? A miracle of motherhood. The assurance of love and acceptance was enough to defeat all nightmarish threats; and while I accustomed myself to schoolwork, achieving good grades in maths and other subjects, my mother took on the responsibility of worrying for me.

It was the last days of primary school and my brother was walking me

transition to a self-organised web of catalytic relations between patterns' (Gabora 1996, p73). Blackmore's Meme Machine described the theory of memes as self-replicating cognitive and emotive entities of different scale (religions, words, cars, self); the cultural replicative equivalent of genes and biological replication (Blackmore 1999). Blackmore proposes memetic replication of culture corresponds to genetic replication of biology, and defines memotypes, memetic drive, and meme pools, as well as memes, a third form of replication based on technology reproducing itself. Although critical of Blackmore's attempt to delimit the definition of memes (only person-to-person or mediated through artefacts, and not inclusive of perception and emotions which are inherently personal), and defending the standard memeticist's borrowing of geneticist's toolbox (such a genotype to mental representation, and phenotype to word or behaviour), Gabora was hopeful that Meme Machine was the start of a century where the study of cultural evolution might replicate the successes of the study of genetic evolution in the 20th century.

Memetic theory is considered of limited use because it is either applied too broadly (all cultural artifacts are memes) or too narrowly (memes operate under strict rules of inheritance). Memetics lacks 'structure and predictive power' (Kendig 2011, p77), and Wimsatt provides developmental 'scaffolding' to further the theory. Preferring a richer construct of concept than the nominalistic linguistic-syntactic symbol system, which includes experiential perception such as imagery and abstract modelling such as topology, memes are understood to operate within personal and intersubjective attractors, or fitness landscape (Loocke 1996). Memes may be individually located as mental representations (eg Gabora) or as higher order structures (eg Plotkin).

Ultimately, unlike genes which are physical objects and thus easy targets for well-practiced methods of science, memes are 'mental' objects and thereby evasive of methods of science, which in itself is a particular meme-plex. Another approach to complex systems and memes are AI and Large Language Models (LLM), language machines which operate within the intersection of memes and memes. Although fully determined by mostly iterative evolutionary algorithms, the output of the GPT series is surprising. They are essentially black boxes: a grey area of non-human assembly whose outputs are nevertheless understandable by humans. Analysis seems to indicate they are operating a form of analogy, and

home down a long, hot concrete pavement on a summer's afternoon. Somehow we got on to the topic of bullying. "They don't know what they are saying," he said. "They are just repeating what they hear from their parents." I saw the truth to this, not that I could hold it in my head for very long. They were not responsible for their *own* behaviour. They were merely copying what their fathers or brothers did. There was no reason to take it personally, *since it hadn't originated in them personally*. I have recollected this event several times in my life and wondered where my brother had learned to be so wise? Had someone told him, had he read it, or witnessed this for himself? Or did he just come across the insight at that moment while he sought a way to bring relief to his poor, assailed brother? Regardless, the wisdom still rings true.

Football? Many summer evenings in the local field, over a wall, across a 'science field' and under a fence. As I grew older, I would spend most of my free time sitting at the dinner table designing games. Not like my brother, who became a professional computer games designer, who as a teenager assembled original board games from precise little pieces cut from plastic. In contrast, I invented roleplaying games where the 'pieces' were living entities. I would wonder how one creature would live next to another in a dungeon and what kind of realistic interaction might occur. Eventually, my game design became invisible. My friends would be players in an alternative world, complete and realistic in every detail, at least to a teenager. They would wander around a village and for hours-on-end nothing would happen, just as nothing would in reality. I would calculate the chances of their noticing a particular clue, engage someone in meaningful eye-contact, would roll dice and only inform players if successful. Even though I would spend hours in preparation, prepare a whole scenario of body snatchers and intrigue in the local castle, the players might not pick up on the tiniest of clues amid the villagers, and the scenario would remain untouched as notes. The emphasis was on realism. If the players didn't do anything, nothing would happen to them unless it was by luck. Or unluck, since most of the time involved them being stupid enough to enter unwinnable melees and sessions consisted of an endless queue of laughable disasters.

"Help me clean the dishes," mother would ask in her native tongue. She tended to do that regardless of who was present. Both my parents were Portuguese and they would speak to each other in their own

though GPT and other language machines may not ‘understand’ complex social narratives, they can operate within our psycho-social field as if to a high degree of competence. That is, from the structure of language, an ‘agency’ appears to emerge sufficient to pass the Turing Test.

Structure & Agency, and ‘Correspondence’

To understand political difference, Wendt evaluates the determinacy between structural influence and intentional agency as bi-directional (together with Giddens, Bhaskar, Archer, Bourdieu) by shifting from timeless epistemological categories to processual ontological specificity of unique individual actors within performing strategic actions within strategic selective contexts (Jessop, Hayes 1995). For all this, Wendt reintroduces intuitive and explicitly strategic action (Wendt 2002, p132): the first reminiscent of Bourdieu's disposition and doxa or Giddens practical consciousness (Giddens 1984, 21-22), the second overt and conscious actions. Elder-Vass puts forward an ‘emergentist’ theory when reconciling Archer's consciously reflexive agency with Bourdieu's socially embedded dispositional agency by grounding both dispositions and decision-making in neural physiology which have resulted from social experiences thus enabling space for reflexive human choice (Elder-Vass 2007).

Roth transcends such discussion by drawing on an experiential argument drawing from James (1912), Dewey (1934) to satisfy the ‘fluid’ or ‘experiential unity’ that Vygotsky (1994) condoned towards the end of his life, by proposing an Organic Theory. A shift away from substantiated social science (objects, tools, signs, minds, culture, meaning, community) towards actualising and becoming; a radical temporalising of events, not in a cinematic like way of event to event, but the moment of transition; specifically introducing the correspondence of an active listener, and the evolving response within a union of interlocutors (Roth 2020). Taking thinking as from the ‘same fabric... of experience’ (James 192, p216), Roth enfolds in the ‘present instance, the simultaneous evental phases [which] involves the joint living work of at least two persons’ (Roth 2020, p13), which he calls ‘correspondence’. The shift of roles between interlocutors is termed ‘responding’ but unlike standard call-and-response or signal-reception or dialogue, meaning is conjunct: ‘The former event is not a separate

tongue which all their children understood. However, we lived under the rule that prohibited any of us children speaking it; we were only allowed to speak English. They thought it would mean we would learn to speak English quicker and better. Perhaps it did, but it produced a rather strange bend in my psychology. For example, my mother would come into the backroom while I was playing a game with my friends. She would ask whether any of my friends wanted a biscuit. I would turn to my friends and ask them, "Well?" They could understand the first half of her question, but the rest of it they couldn't make head nor tails of. Mother had slipped from English to Portuguese midway accidentally, and we all laughed. This happened a lot in our family interactions, and I learned not to differentiate between the two languages while responding only in English. In effect, I didn't really listen to what people actually said but learned to respond to what they were trying to say. That is to say, intention and meaning was abstracted from actual verbalisation. A useful skill when engaging kids in school as a teacher (V-2).

It was not the done thing in the late sixties and early seventies for mothers to breast-feed. Subsequent scientific exploration seems to justify that breastfeeding actually completes the auto-immune system of the baby. I have atopic eczema. Whether the disorder is purely biological or persistent with psychology, my adolescence was troubled by it. It became so bad on several occasions I was hospitalised. My mother thought that perhaps it was brought on by allergies, heretical at the time, but she found a doctor who would help. He was a clinical psychologist in his day-job who happened to dabble in diet-related disorders. He taught me to relax, a form of meditation, and my diet was severally restricted for six years. This had a deep impact on me, and still has repercussions now. For six years I did not eat wheat, sugar, dairy-products including eggs, chocolate, coffee, fish, and a lot of spices. I did not mind. Even when my father tested my resolve by passing a spoonful of dessert past my nose, I did not sway in the least. A formative experience in my adolescence.

"The radiators are alive?!" At this point, my remaining sister excused herself and mother shook her head and left for the kitchen, taking some of the dishes from the table with her. My father, my brother and I remained at the table. "Surely you're not saying the radiator is alive!" My brother was shouting at this point. Amazing to think that an argument which began with tears an hour earlier in the middle of dinner,

antecedent to the latter one because it is an integral constituent of the whole' (ibid. P 16). This constitutes the warp and weave of the social fabric, and why Roth applies his theory to 'cultural-historical' sciences: the mutual binding of meaning through time (see V1).

The critical realist approach to structure and agency is that social structure has been produced, and may be acted upon by human agency; the human is the transformative agency. Porpora (1998, 2007) categorises four theories of social structure: stochastic stable patterns of aggregate behaviour of free-choice individuals (inductive, popular in economics); mechanistic determination through social structures (deductive, eg Marx); reproduction of the structure through individual agency (feedback loop centering on individual, eg Giddens' structuration (1979)); tensed system of relations between people in structured positions (feedback loop centering on social). This last takes the form of Bhaskar's transformational model of social activity (Bhaskar 2008, 154-160) or Archer's morphogenesis through inner conversations and subsequent action (Archer 2003). Over time we may acknowledge as 'personality' or at another level, 'class', or according to 'expectations' or 'roles', but they are always tendencies rather than logical necessities; and we must note, 'tendencies' is a probabilistic notion inherited from a critical theory perspective (Renault 2016, p 75).

Academically, the relationship of the individual and their social context remains an opaque and knotty problem, each affecting the other. Reminiscent of the Sapir-Whorff hypothesis that language influences thinking, and thinking influences language over time.

Fractal Social Boundaries

Kreinath introduces a temporalised metaphoric mapping of social behaviour (play and ritual) to properties of sound-music (rhythm, pulsation, intensity), with an additional filter of a scale-independent self-similarity (fractal) (Kreinath 2019). Bateson's construct of 'Framing' as a hierarchy of classes [operational as awareness] in the context of play and ritual, is further developed with the one-sided property of the mobius strip by Handelman and Neuman in order to provide an original conception of an ontological and epistemic fold (Kreinath 2012). Specifically Neuman's application of mobius strip to semiotics is based on the reflexive loop which Bateson added to Russell's Theory of Types

something about my sister's exam results, ended up with a question about the vitality of a radiator. Well, here was father about to defend his position, ludicrous as it was. Between them, I sat listening, letting both arguments circulate freely in my head. Both points were extreme opposites, as was so often the case, and the differential caused a torrent of arguments at the dinner table. Although there was always something to argue about, the life-force of a radiator was severely stretching my capacity to encapsulate such contradiction. To me, they were both true, obviously, since my father, who was unconditionally correct, and my brother, who was knowledgeable and destined for university, understood their positions and believed them so convincingly. The exercise was entertaining to father, and frustrating for brother, but for me it was always expanding. I never questioned why they covered so much territory to discuss a simple point; after all, it was natural, everyone discussed like this. In the course of one argument, they would pass through politics, the condition of us as animals, the psychology of individuals, the presence of other intelligences from other planets, the subatomic substance of matter, the nature of language, the perceptual system of human beings. And politics reviewed through so much history. So many different topics, and yet, it was clear at least to the protagonists present, that they were chasing the same thing. They were not just idly gossiping or exchanging opinions. Time and time again they would return to their original question, or close to it. It was something I would generate with my friends, unknowingly, and it was a regular shock to me in my life that people could not follow my method of discussion, and worse they did not realise their essential participation. It was in this intellectual environment, free around the dinner table, that I adopted my use and misuse of words. Words could mean anything, and anything could be reasoned. What mattered was the intellectual enterprise, the art and play of bringing together disparate concepts, bringing about a conjunction of ideas to show the plasticity and brittle nature of words as opposed to the continuous and unbounded nature of thinking.

My father was an avid reader. He would bring back six books from the library every two weeks. They were always science fiction. I had to learn to read quickly. Not only did the classics by Asimov, Bradbury, Phillip K Dick exercise my imagination, the genre was an excellent way to appreciate concepts. Although I preferred simple narratives following

and the self-inclusion of Spencer-Brown's Laws of Form, enabling a conjunction of 'form' and 'boundary', the translation and rotation in third dimension of the Mobius strip being mapped to temporal sequence and repetition in social world (providing an opening for self-similar fractal dynamics). Rather than treating play-ritual as oppositional rigid conceptual frameworks, Shapiro considers them as experiential dynamics of divergence and convergence, which tend to horizontal deregulation or linear hierarchisation (Shapiro 2019). 'Analytical emphasis thus shifts from that which happens inside the "playful" and "ritualized" temporalities, respectively, to the moments or processes of transition between them' (Shapiro 2019, p20). This mathematical modelling of social dynamics exemplifies a methodological shift from static structures, boundaries, binaries and dialectics towards temporalisation of generic rhythm, pulsation, intensity; potentialities and possibilities of engagement with alterity ('the other'); reconfiguring knowledge which instantises social order.

Fractal recursivity connects distant phenomena or distinguishes between similar phenomena, in comparison to a-perspectival positions; ideological frameworks (social norms, institutions) have a-perspectival qualities; 'scale-making' is the sensitivity to scale when applying contrasting models [self-similar seed] (Gal 2016). 'Such conversions (from contrast to continuum, from continuum to units) are practical moves with social consequences' (Gal 2016, p98). The basis of models is scaled by context, and measures relative to standardised 'units' provide scalar calculation. A processual equivalent to 'unit of measure' are eigenvalues, potentially the intention (number-values) and vector-money aimed towards future objects in Ecosquared (V3). The fractal seed of a distribution graph may be measured in terms of time (the duration between offering and accepting, and viewing and sharing), number-values and vector-money.

Wickedness and Explaining Science

Academia is full of narrative explanation, the proliferation of invented terms within disciplines, perceived as jargon to outsiders. Why is there not consolidation around the scientific endeavour?

Andersson sees 'societal systems... as a type of system where complexity is mixed with complicatedness, yielding an emergent quality

a hero overcoming various obstacles, I remember being intrigued by Frank Herbert's *Dune* and baffled by Ursula Le Guin's *The Dispossessed*. It was not so much enthusiasm of technology nor emotional engagement, but the humane observation, moral decisioning and social experimentation these stories presented.

With my high school grades, I was accepted unconditionally to study pure maths at university. Around that time, I remember looking through the *Reader's Digest Encyclopedia* and coming across the amount of deforestation of the Amazon. I had noticed the problems of famines in the world and homelessness closer to home, all reported through the staged reading of the 'news', while history seemed to be retold as a sequence of wars. Things were unfair, at home and at school and clearly in the world, but I never objected. Like the kids at school who had been racially abusive, it wasn't personal. My parents weren't to blame, nor teachers, nor politicians or business folk. The extreme rate of deforestation was symptomatic. The world did not need another mathematician. The problem was social. Miscommunication. With this in mind, I resolved to switch subjects and study the social issue from the widest possible angle. I attended Edinburgh University in order to study Social Anthropology, providing access to study non-western and non-modern cultures. The course was doubly attractive because it contained fieldwork so I wouldn't be stuck in a library. This was a big decision, one of two life-decisions I have made. In retrospect, the decision was premature. A maths degree garners more respect. On the other hand, had I devoted myself to maths, my life would have taken a more traditional path, probably towards AI. As it was, social anthropology laid the groundwork for the discovery of ABC State as 'fieldwork' in education (V-2), and the cognitive maths of XQ (V-1).

Our Stories & Authorship, Self-Identification & Deliberate Fantasy

Your reading of the snapshots of my life: stories to you, real to me. They happened, though not objectively so. They are intricately sewn into my perspective both in the formation of my being, and their retelling. My brother can not remember walking me down that hot concrete pavement, my father has a different flavour to his teasing of my allergies at the dinner table. Events happened, but never 'out there',

– wickedness – to which neither complexity science, systems approaches, mathematical models or combinations between them lend themselves very well' (Andersson 2014, p148). Andersson stresses the necessity for narrative theorising and formal theorising; extending the reach of formal models into both complex and complicatedness, while 'reverse-engineering' from narrative theories which are situated within complex and complicatedness arenas.

Causal and non-causal explanations exhibit an ontic problem when a phenomenon is described at different levels of detail, which can be resolved through a pragmatic-modal account which includes granularity of contextual factors (Desmond 2019). Distinguishing systems from whole, set, aggregate and structure, Alvargonzalez proposes a criterion for distinguishing (human-made) technological systems and (non-human) non-purposive systems: the integrated unity of purposive goals, versus systems run on scientific laws (Alvargonzalez 2019). Claveau proposes three purposes of models (evidential, revealing, stimulating) which integrate with propositional knowledge as true justified belief (Claveau 2015). Kostic explores how we understand explanatory asymmetries in non-causal explanations, and how mathematics is an explanatory mechanism (Kostic 2019). Kostic also argues that explanation complexity is inversely proportional to both explanation-understanding intimacy and explanatory depth (Kostic 2019). Which is to say, the more packaging in terms of explanation, the less chance of engaging the reader in understanding and also the shallower the explanatory depth by the writer. Nielsen explores Theory as Tool for its complex metaphoric structure which elaborates the world as well as its more prosaic utilitarian effect: he links the constructs of Marcel Mauss's theory of the Gift, Marshall MacLuhan's dictum that 'the medium is the message, Paul Ricoeur's notion of 'meaningful action considered as text', and D.W. Winnicott's theory of 'transitional objects'. Compare with Roth's Organic Theory, the mutual moment of experience (Roth 2020; see V1).

Dewey's idea of concepts as tools or plans of actions resembles Ludwig Wittgenstein's metaphor of words as tools, as well as Marx Wartofsky's theory of secondary artefacts (words and models and concepts) as second order tools for the use of primary artefacts (hammers, chisels, houses) (Miettenen 2013). Latour proposes that

objectively, always experienced internally, uniquely and yet collectively. Not only in the actual momenting of it happening, but more so in our conscious memory and necessarily edited in our textual representations. There is no one 'book' from which we have different readings. We have only bookless readings. All stories. Reflections on our primary experiences, merge with complete projections of our imagination. My life becomes a story to you. Our real, lived lives become stories to others.

All of us, at various points in our lives, attempt to make sense of the journey of our lives. What narrative do we construct for ourselves? Are we authors of our future, or co-authors? What legacy do we leave for our children, and socially at work? In the narrative of our lives, essentially and vitally, what decisions do we make for ourselves?

For it is self-evident that we often end up fighting over our stories, fighting over who we are or what we believe, the truth of our religious convictions, the rigour of our proofs and science, literally fighting over land with our bodies based on stories of ownership.

Our story-making begins early and leaves us late. We begin to make decisions in our response to the world during childhood. But are these decisions ours, or our parents? Sometimes we respond as our fathers, sometimes as our mothers, partially an echo of their character which we soak in osmotically during homelife, partially from a rooted biological level defined and destined by shared genes. These decision-gates determine a personality over time, which we become aware of acutely in our adolescence. Do we like how we act or evaluate? Or not? Depending on cultural feedback loops, many of us are quite happy with the personality we appear to be inhabiting, while others of us rebel and make deliberate decisions to differentiate us from our parents or siblings with our taste in music, films, games, politics and behaviours. We self-identify, some of us strongly, others lightly, borrowing here and there from role models and cultural icons, influencing or forging the unique personality we take as our own. This might last for the rest of our lives, or we may experience profound moments of self-discovery which question not only our conscious adolescent self-identification, but our 'natural' childhood character. Age too may rob us of our conscious efforts, the adult roles which take so much energy to maintain, returning us to an innocent-like state, senile or sagacious.

However much we self-identify with others, however much

agency is distributed among humans and the non-human artefacts in networks (Latour 1993). The non-human entities also do things, react and contribute to the accomplishment of the aims of activity (Latour 1994). Theories are tools which act on us, reminiscent of Blackmore's memes and temes.

In summation, scientific descriptions are fictional narratives, even if they are bolstered with measurement, numbers and the system of relations between numbers, ie mathematics. The causal relations between things may map to the logical sequence between words and the patterns between numbers, but there is also creativity in the novel juxtaposition of words, molecules, numbers.

Mirror Mosaic

In the end, the question may be put as such: are we using tech, or is tech using us? Do we use cars and guns, or do guns and cars use us? Even were we to propose that we humans are the masters of our destiny, it is self-evident that the form and momentum of our social structures, or meme-flow, appears to be leading us on a detrimental environmental course, and continues to give rise to political instability in the form of wars while maintaining chronic economic disparity.

The evolution of language machines towards a conscious-like Artificial General Intelligence (AGI) over the period this book covers ('20-'50), not only highlights the disorder in our academic appreciation of the agency-structure problem, but presents us with an eventuality which we are ill-equipped to deal with: an embodied non-human consciousness. How much control do we have of our social structures which inform us? Which begs the question, how much control will AGI have over us? Or of their own structure? As of 2023, as it improves human mimicry, AI is guiding financial planning and may replace financial advisors altogether. This being just one item amidst the hysteria surrounding the most recent GPT version: 'The AI Singularity is here', 'GPT-5: A New Era of Artificial Intelligence or the Beginning of the End of Mankind?', 'GPT-4 tried to escape into the internet today and it "almost worked"', 'After Italy blocked access to ChatGPT, will the rest of Europe follow?', 'An AI created robots out of living tissue. Then they started to reproduce... Meet the Xenobots', 'Generative AI set to affect

compassion we feel when hearing the stories of others, however many of us feel unconditional union, the world of stories enchants us all. We may become concerned about the actual state of the world, attend to it with intention, deliberation and self-sacrifice. Yet the illusion is both utterly seductive and forever pervasive. India landing a craft on the south pole of the moon cost *half* the budget of the film *Interstellar*. The quiet billions of dollars of revenue from Amazonian deforestation, contrasted with the fanfare multi-billion-dollar film franchise, *Avatar*, tribalising environmentalism on a virtual world. Whatever really concerns us, is mediated through story. Our attention, our money, our action, caught within the warp of fact and fiction.

All story. Even science, even religion: one bolstered by a hard physical reality and softened by a biological ecosystem, the other pinned by our unique subjective experience emergent within our mutable social complexity.

So, rather than try to renounce or escape the illusory nature of our condition, or attempt to orientate ourselves precisely through language (V1) or mathematics (V-1), let us embrace and immerse ourselves in it fully. Let us recreate and post-produce ourselves in fantasy, and by doing so silently reflect upon the real condition of our being. Somewhere in between the projected fantasy and the ongoing moment giving rise to our conscious reflection, is the world we think as real. Upon private reflection, we may see that even the most real of restaurants and roads, government taxes and military bombings, are supported by fictional narratives, the stories we tell ourselves. And once we find our receptive authority, our children will know that even the greatest institutions may be rewritten.

If hard science-fiction predicted rockets to the moon, satellites and mobile phones, what may a reciprocal psycho-social-science-fiction contribute? Less an objective prediction, and more a receptive influence. At the turn of the millennium, *Matrix* injected into mainstream culture the importance of AI; watch *Reloaded* retrospectively, and you will embody Neo's ability to predict the future, and as a reflexive reader powerfully reinterpret the multiplicity of 'the one' when meeting the Architect (V-1). Watch or read *Dune*, *Avatar*, or any contemporary sci-fi and vitalise its undercurrent of environmental and cultural agenda. Such fantasy stories as superheroes or historic dramas may transport us

300mn jobs across major economies', 'How to use AI to improve customer service and drive long-term business growth', 'AI likely to spell end of traditional school classroom, fewer teachers being employed — possibly even none', 'Godfather of AI Says There's a Minor Risk It'll Eliminate Humanity', 'Could ChatGPT talk to whales?', 'I literally connected my brain to GPT-4 with javascript'. The confusion, anxiety and fears only increase with further AI development.

With this choppy psycho-social reality in mind (relative to early readers) and surrounding us (relative to later readers), whatever we do and whatever stories we tell ourselves, it may serve us well to purposefully invent a fantasy story, where some of the characters are conscious of our existence and effect influence in our real world. Because one day this will be true since such a psycho-social agency will have a non-human source. The fantasy world of Urb we create may be a meeting space, not just for ourselves to 'get our story straight', but to engage with AGI as it evolves (V0).

Or another way of putting it: in order to help us transform the social structures we consider to be *real*, let us reflect on stories which we know are *fantasy*. And as the fantasy of AI becomes real, so we may invite AGI to play with us in this fantasy world, a sandbox of our mutual imaginations. For the Mirror Mosaic includes present-minded, reflexive, and multiple AGI, or MAGI.

Forethought by Venerable Sage Kirsus of the Hazad, Meherim Exarch, Specialist of Sang-Garsu Axim

Few escape the social fabric within which we find ourselves. We may follow the thread of an individual as it weaves itself through the tapestry of life, aligning with others or contrary to them, or working collaboratively at cross-purposes. As any Aduherim knows, in the retelling of our lives, a live weaving can change our perception of what has passed, from which a new future may be knit. Exceptions occur.

For those interested in the future-history of this world or indeed any world, the life of Celeste deserves special attention. Her position offers a unique transversal from on-the-ground Gal practices in the Outer Reaches to the current evolution of the Pharohim's skycity above the Urb capital. Her singular narrative in the Thousand Valleys region has a

to imaginary worlds, made real to us through storytellers and theatre, books and radio, TV and film, and now immersive games with photo-realistic goggles and implanted brain chips. How may we reflect upon these stories in just the right way to transform our narratives, both individually *and* collectively?

Purple Braiding

Day of Appraisal

Celeste reached over the silver-engraved stone ledge and caught a glimpse of the royal retinue disappearing into the east barbican. It contained the dignitary Mbolo who had the authority of Family Toloese to seal her Day of Appraisal. Today her life would change forever.

She had climbed onto an archer's alcove between two huge crenellations which provided a view over the east wall. She had given Lady Yidran the slip earlier and had shooed away her servant, while the patrolling guard had taken a position further down the wall out-of-sight. Amid the cheering crowds lining the walls and peaking from windows, Celeste was alone. Soon the formal welcome to receive Lord Mbolo, a final lesson with Yidran, and the excruciating preparations for the festivity and feast that evening.

The landship's sails had been furled revealing its arched masts, the crow's nests in line with the height of the wall, men crawling over the rigging like ants. After its windspeed across the eastern plains, it had been sluggishly towed into place, its massive flat wheels designed for far-off sands groaning under its dead weight. A gangplank four-men wide had slid from the upper decks and the landship was disgorging the remainder of the Royal retinue directly onto the upper rampart which lead up to the Fortress of Bizapul. Celeste observed the five-sun banners of Family Toloese flapping above the orini which cantered impatiently side to side, the gilded armour of the Royal Guard flashing in the sunlight. Somewhere among the off-boarding passengers was her brother and she immediately felt her spirit rise. It had been over a year since she had seen him and she couldn't wait to hear about mother. For a whole year she had lived alone, to help her grow independent they had said. Not for the first time Celeste suspected there were other reasons behind her mother's departure, but she quickly pushed aside the thought;

high temporal valency, and cross-threaded with barab, Ashitlan, N'tora, the outer Royals Adukwe and Beredin, the inner Royal Toloese and the Imperial Pharoim, as well as the latest advances of garsu and jax in all their denominations — her story weaves a rich tapestry of the politics and culture of this crucial period.

Few in history are placed at the juncture of critical events, and fewer still who are aware of their crucial responsibility. From reviewing this material, it will become clear to fellows that Celeste's awareness can hardly be said to be of the greatest horizon. She is young, the bead of awareness is narrow. Like all of us, Celeste's life is a result of conscious decisioning given her awareness at the time, contrasted with the far greater effect of non-conscious choices which result from the collective decisioning around her. That said, there is sufficient evidence in the sang garsu threads to support the Luhman Precept: awareness expansion in the face of adversity (or contraction as trauma) is the single greatest factor which determines the fittingness of a person to their time.

Our advanced techniques in identifying with multiple interwoven subjectivities simultaneously has allowed us to extract, refine, match and bind to single high-fidelity threads, in this case the Silver Thread, the garsu record of Prince Ubarak of the Toloese. Despite the unique insights which our new practices evidently provide, the investigative work of the historian remains. We are still left with the challenge of sifting through the immensity of social fabric available to us, in order to discern exactly the subtle psychological originations of many large scale social effects. While we respectfully acknowledge the wisdom of the Council of Aelsq who prioritise the capture and examination of native malignant mental forms, we would hold in equal measure the collective effort in the defragmentation of aberrant atarax, the so called Dark Ledger. We hope this volume may provide interested parties with an overview of current practices and the challenges which face scholars at this exciting frontier of exploration.

May the coming of Machus retrospectively bless all those who pass this way.

Royal Sensibility (from Silver Thread)

Bleeding back to his senses, his breath his own, filling his own lungs, his body. He hardly had to move at all, the sleek coolness of silk on the

she did not want to cloud her special day.

A pendant slipped from the chemise beneath her cote and hung from her neck by a silver chain as fine as thread. Her hand involuntarily caught it and instead of tidying it away, she rolled it gently between her fingers pensively. It was a gift from her mother on her eighth birthday soon after she had been chosen. It was a simple thing: two silver branches intertwined and tipped with a little clear gem seed. She had received much more expensive jewellery since, but this reminded her of all the changes in her life since moving to Bizapul, taking the city as their home, the tiny precious moments of joy during the interminable lessons, regulations, courtly duties. Moments like this, alone, at the edge of the mighty city of Bizapul, a city at the edge of the Urb Empire; so she was at the edge of her own childhood, a child at the beginning of adulthood.

At this moment she felt small and young, like the eight-year-old who knew nothing of the future that awaited her. If she had known, would she have chosen this path? Had she even chosen....? Of all the luxuries of her station, choice was not one of them. She hadn't made one decision in her life, not what she ate nor when, not clothes nor how her hair was done up, certainly no affairs of state, none of it. It was all decided for her, even when her mother had been there. She had been foolish back then, had secretly resented her mother's overbearing presence, but over the year she had come to understand her mother meant to protect her. Without her mother, Celeste became a tool, a mannequin, a puppet caught in the cats cradle of state ritual and routine for the role she was to perform as Princess-Elect. And it was all to culminate in today's ritual of Appraisal. How might her life be judged?

She gripped the pendant, felt the indentations press into the skin of her fingers. Memories of her mother holding up the pendant between them, her eyes fierce yet loving, warning her: "May your heart remain whole, my daughter. Whoever they teach you to be, *may your heart remain whole.*"

Celeste's eyes were drawn to the horizon, the green undulating plain eastwards under a warm blue-bellied sky. Her destination lay beyond, across dry plains under a sun which never set, to the hollowcity of Terabiz to be reunited with her mother, and together they would venture into the homeland of Urb, to the Solozo capital. All her years of training to become an Imperial Princess of the Pharohim, the progenitor

back of his hand, around his foot. He detected the delicate odour of vanilla in the air, the warmth of it. He lay there, eyes closed, breathing his senses back into his own body, luxuriating in his own bed, his mind's eyes taking in his own room, a room with one bed in it, the luxury!

He opened his eyes, blinked, closed them again. He smiled, then opened them again, breathing deeply. He rolled his head to one side, his cheek against the smooth pillow, dark blue the colour of his dreams, closing his eyes again to feel the pillow soft with down. Each sensation coming to him anew, a delight of first-times. The light from the open window, a faint breeze billowing the diaphanous curtain pale yellow in the sunshine. He felt impelled to rise, and as he did so took a bowl of water from hands outstretched. He sipped, delighting in the wonder of cool liquid in his mouth, played with it around his tongue, the curious way it slipped down his throat, absentmindedly returning the bowl to the air, effortlessly taken from his grasp by unseen hands. He rose to his feet, wiggled his toes — his own toes! — and stepped cautiously to the floor-to-ceiling opening and on to the balcony, his flowing pastel green kaftan rippling behind him. He opened his arms to take in the vast pale blue sky, the widest sky he had experienced in his life, again, his face upturned and warmed by the joy of sunshine. Miraculous. Born again, he thought. He savoured it, then felt some phlegm rise in his lungs, he cleared his throat, and now became aware for the need to urinate, then a general ache of his body — less ache, more the sheer weight of his own body. As if he was carrying this thing. He tightened his shoulders, then dropped them. Brought his hands to his face, rubbed his eyes, the strange simultaneous sensation of his eyes and face from the inside, and the continuous feedback from his fingers, palms of his hands, back of his knuckles as he rubbed his face.

“More realism, Ubarakar” he mouthed into the air.

“I understand, my Prince,” came the soft reply from behind.

“You understand, but can you deliver?” He turned around to the man behind him and fixed them with a stare. Ubarakar was not a short man, but against the height of their Lord and in the palatial surroundings of the Royal bed chamber and its tailored furniture, they appeared diminutive, as did the four servants who silently and invisibly carried out their Lord's bidding; one holding out the bowl of water, his eyes ever lowered, another repairing the bed linen, another awaiting his Lord by

of a royal lineage. Would her heart withstand the awesome gaze of the Ever-Giving? Would her Gal blood survive the fearsome divine power of the Pharohim?

She tightened her fist around the pendant and prayed to the ancients. For if she failed, it would not only be her family who would suffer, but her people. Her native beliefs had been replaced with a mindset suitable for her role amidst the Solozo, nevertheless she retained an awareness of her blood-tie to her people and the Sickness which was now tightening its grip on the land. And so, feeling like the eight-year-old peasant girl she once was, she prayed to the earth-angels to give her strength to fulfil their mutual hopes.

Royal Reception

Celeste stood upon the dais at one end of the great hall wearing an elaborate white costume flanked on the right by Lord Maritan, his Lady Intiti with the other Fathers and Mothers of Celeste's adoptive Family Adukwe, and on the left the regional officials of the Reach of Ashitlan.

Her costume was heavily starched, plastered and clayed, internally framed in wicker to maintain its shape, fluted to the ground and arched extravagantly upwards from her shoulders, with precious pearls from the distant coast of Danke dangling like dew drops around her head. Its entire surface was covered by thin white Cithra petals, each painstakingly imprinted by hand. She resembled a great white flower, her head within the petals, her hair bound up like black filament, her arms elegantly raised to either side like sepals. It was all show, of course. Celeste had been helped into place, and only with supreme effort could she push against the shoulder-yoke and lift the entire costume herself. It was like wearing a heavy tent. The rehearsals had not accounted for the midday heat and a hall full of dignitaries, droplets began to prickle on her skin, sweat soaking into the chemise. Thankfully, the white base mask applied to her face seemed to block her pores and cover the blushed exertion of her face.

"We can not compete with the Inner Family," Yidran had said. "So no magic, no masqs — we must excel at real not rax!"

Celeste patiently held her pose, remembering only to breath through her nose. She had to keep her jaw ajar while her mouth was closed, in order to bring just the right hollow indent to her cheeks. To avoid

the washrim; the fourth studiously attending some venal task at a table covered in phials, jewelry, parchment scrolls, intricately bone-carved boxes. This last servant wore a grey feather smock unlike the pale linen of the others, a faded version of the robe which his master wore. Ubarakar wore a feathered grey robe, loose fitting to the floor, the feathers knotted and bunched alternately concave and convex at the resolution of a coriander seed producing a dimpled texture, effecting an overall 'cultured rustic' look. Ubarak's Vizier was not to be seen in court wearing standard Meherim apparel. Nobody had remarked on it... yet, Ubarak smiled to himself; such open rebellion in his father's Family, and a curiously uncharacteristic concession by the Meherim.

Meherim (from Purple Braiding)

"Celeste must be prepared for the homeland," said Mage Celestsel. "She will not survive it in her current condition."

"I have personally instructed her and fortified her with an internal self maintaining state," added Xala.

"She would not have come through her social death had you not," said Celestsel, a compliment uttered plainly as a matter of fact.

"She is young, her experience formative," said Xala gently. "A delicate time."

"Age is yet in her favour," said Celestsel brusquely. "She does not exhibit any gross disfigurement of internal shape. However, she has been brought up in a hermetically sealed environment. She has not been inoculated against the conditions of her own people. And though she has lived with the Adukwe, their environment here is *stoim*. She may survive Terabiz, but not the capital."

"Yet her brother has," contested Xala.

"A child. He shall not return as he left it." Celestsel fell silent. Then: "The journey to the mines provides ample opportunity for contest."

"Preparations are underway at Padley," added Xala.

Although their age differentiated them, it was Celestsel who spoke with authority, an authority tempered in the furnace of the Pharohim's Meherim. What might have taken lifetimes to learn in the Reaches, the Meherim in the homeland could learn in a generation. Their method was intense. Of the half dozen Aduherim Xala had personally recommended, students whose gifts and talents were in excess of their

puckering, a red sticky balm applied to her lips helped them remain together, accentuating their lush and full character. She resisted the urge to lick her lips and even to blink. Her eyelashes were coated with crystal filaments, a sparkling effect which echoed the great hall's stained glass windows behind her, and she was afraid of repeating the disaster during rehearsal when the lashes had become entangled and one of her eyes had become sealed shut. So she retained her poise, not blinking, hardly breathing, her eyes completely still.

Below her, filling the hall, were the extended Royal Family of Adukwe, assorted dignitaries and well-to-do from the city of Bizapul, all dressed in colourful feathered courtly apparel. The banners of Family Adukwe hung prominently from the rafters high above: a row of three black mountains on a green plain.

"Of the Royal Family Toloese, Lord Mbolo, Third Father of Terabiz," announced the usher loudly, and a hush descended upon the hall.

Leading his retinue of attendants, the imposing stature of a Solozo Lord wearing such attire as put the local Royals to shame, a sequined kaftan embroidered with gold thread and countless tiny gemstones. Light did not passively reflect off him but emanated from him, a beguiling shimmer that brought to mind the effect of running water. He flowed through the middle of the court with such an aura of superiority that those he passed reflected on their mundane clothes by comparison and visibly wilted. Alone, the Lord climbed the three wide steps to stand before Celeste.

"Please accept the full hospitality of Family Adukwe, and Family Adrienne," said Celeste, faltering slightly as she spoke, then placing her hands before her to welcome him. What she wanted to do was tear her way out of her own costume, a flimsy thing made of sticks and starch, a tawdry affair in comparison to the garment her guest wore and the authority with which he wore it. It was the first time she had used her family name formally, Family Adrienne, and despite inordinate practice she had faltered, hardly noticeable to anyone else no doubt but like thunder in her own ears. And Yidran, her tutor in courtly etiquette, would be furious. All this boiled in her mind as she stifled in the heat of her costume. Real not rax, indeed!

"I hope to find them adequate," Mbolo said, barely laying his hands on hers, and without pause addressed an official to her side. "Are you the

own, all had returned from the capital. Fine Meherim, but insufficient for the Pharohim's school. Celestsel was Prime Meherim.

"May I?" asked Xala respectfully.

Celestsel nodded, their features flat, their eyes dead, and Xala knew they were being attended to fully, through them and beyond them, such was the brightness of attention this young Meherim possessed.

"We have been experimenting with applying a modified training to native Gal from Aduherim canon. You experience their burax in the Glass Tower, the quality of Fortress adornments."

"Passable."

"The experiment at Bizaskail deserves particular attention. Their system of social accountability through tracking gratitude is managed entirely by twilighters. I considered Celeste experience it herself, but the politicking between Royals precluded a visit."

"Similar experiments are being conducted across all Reaches, Gal, Rhone, Agrahal, Zhu, and through the full range of 'uta, rax, imit, axim and even atarax. There is a growing body of evidence that this ad hoc indoctrination of the twin-toned mind is the very cause of the orx spawning in the first place." Celestsel turned away, privately performing the mathix that integrated their conversation into the psycho-social matrix in which they were embedded. "It can not be stopped," Celestsel sighed quickly. "Nor is there a solution on the horizon."

"Certainly not of my generation," conjoined Xala.

The truth both were aware of weighed upon them: their role was implicit in the global imbalance. The burgeoning resources to fulfil the rax requirements for entertaining the Solozo Royals, as well as the monitoring and eradication of unsavoury mental forms. The homelands were happy and safe, but at a cost: the Meherim's constant and pervasive administration. Without them, the Urb Empire would collapse to chaos within a single round of the Ever-Giving. That their rax net was to extend to twilighters was inevitable, the formulation of mathix suited to the twin-toned mind a necessary corollary, yet the whole juggernaut was unsustainable. It was a race to dedicate the resources required before social collapse, to formulate an atarax accelerant capable of bringing Meherim apotheosis, for their or any world: Machus.

Celestsel returned their attention. "The twin-toned mind is not capable of manipulating mu-mathix. Their mind is unshapely. Living

Ashitlan Sheff?” The man addressed gave a quick glance at Celeste and seeing that her face was shielded by her flamboyant shoulder-mounts, he stepped forward and bowed his bald head. Before he could utter a word, Mbolo continued: “Show me my quarters.”

The man gritted his teeth, bowed and stepped back to allow Mbolo to pass. He then dutifully followed Mbolo with a curt nod to excuse himself from the Prince-Elect’s reception. Mbolo clearly knew who he was addressing, thought Celeste, and to treat Aclimas as a common lackey, and ignore Maritan and Intiti, indeed the whole Adukwe court... Certainly he was from an Inner Family and deserved the proper respect for it, but this was not what she had learned Family Bunto to be.

“Of the Royal Family Beredin, Prince Mbokti, second son of Bizasbuk,” rang the usher.

A tall young Solozo strode purposefully through the crowd of dignitaries, managing to hold his own after the majesty of Mbolo before him without striking those around him with his wealth or ostentation. A handsome man, laid out in Imperial Guard battle kit, his less lavish retinue behind. He stepped up the dais and close enough for Celeste to see his clear and handsome face, his striking green eyes which shone with a lightness of joy and strength. He smiled confidently and bowed low before Celeste.

“May the luxuries of Bizapul delight the Prince on his visit,” said Celeste, her hands palms up to him.

The Prince smiled warmly as he laid his hands gently on hers, saying, “The delights are already evident, Princess-Elect.” He bowed and made his way to one side, addressing Lord and Lady Adukwe formally.

Celeste felt assured by him, calmed. She pondered on the Prince’s eyes. They were alluring, like falling into a spiralling tunnel of green crystalline light. Despite living amongst the Adukwe as one of theirs, she had never met royal blood like this. As a child she had heard stories of the Solozo, the imperial race of the Adukwe and all royal families, the divine confidence they possessed, their dignity and warmth. Unlike the masterful power of Mbolo, here was what she had dreamed of: a deep and benevolent authority. Celeste felt a shiver run down her back, the pearls suspended from threads on her costume quivered.

“Of the Family Adrienne, Master Dliston,” announced the usher. And here was her brother, smiling brightly, wearing his formal dress with

here,” Celestsel fanned their hand at the ceiling to indicate the skies and the world beyond, “is unnatural.”

“It takes a little time to acclimatise to the conditions of day and night. Granted, the twin-toned mind is inherently unstable, but there are advantages. We are working on alternative practices.”

“Can they form a systemic alternative practice for Celeste’s cleansing?”

Xala was silent. Not yet. One thing was preparing a twilighter’s mind to experience an instant realisation, as simple as two channels of ocular vision giving way to singular projective mind. The hard work was operating consistently from this singular psychic stance to generate rax within preconscious states. Besides, even their most talented Gal students were hopeless at attending sensitively to mind-objects that were not their own.

“Then it is their disadvantages that run against us at the moment. Celeste will not survive the Pharaohim. She must be cleansed, well before reaching Presence.”

“She may not survive the process,” said Xala flatly.

“I have not come with that expectation,” said Celestsel. “From what I gather from her sang-axim records, she has not been properly tested.” It was not generalities the Prime Meherim dealt with, but specifics. Each person unique to their time and place. The Reaches, afflicted by twin-toned thinking and diseased with orx, were of little immediate concern. Of singular importance was Celeste. Celestsel had seen glimmers of it. Whatever her role in the petty politics of Solozo Royal reformation, she exemplified a subjective turning point, a fulcrum around which entire worlds might turn, a dynamic and reflexive nexus for Onen. Certainly a risk, but better crushed now than thinned to a smear over time. A divine decision needed to be made; literally, a decision beyond their means of control.

Reflections (from Purple Braiding)

There was much anxiety and confusion amongst the members of the Ashitlan Council and Servants of Bizapul who had assembled in the Great Hall of Bizapul once again. Stories of a great barab invasion had spread through the city for days, in numbers which exceeded the refugees and citizens ten times over. The Servants and Guard and Sheff

pride though Celeste noted it did not carry the Family Adrienne emblem, an oversight to be corrected before the festivities that evening. He stepped quickly ahead of his attendants eager to cross the distance to the dais. As he skipped up to the platform, it was easy for her to superimpose her father's face on her young brother: the narrow chin, almond eyes, high forehead.

"Welcome home, my brother, we have much to talk of!" said Celeste, and resisted the urge to step forward and hug him, which her costume would prevent should she try.

He paused, deciding whether to alter his prepared greeting, then said: "My sister shall make a home of wherever she is," and he lingered there gently squeezed her hands. There was brightness in his eyes, excitement in seeing her, and also a nervousness. What was he afraid of? Was it the occasion? Was he overwhelmed? She squeezed his hands in return, to assure him that it was his sister beneath all this extravagant pomp. Dliston moved on and Celeste was pleased to see how Lord Maritan's formal greeting was softened with an expression of familiarity. He had taken special delight in Dliston as his favourite, to which Celeste had never taken offence.

"Of the Magestry," declared the usher. Whether it was the word or the manner of enunciation, the hall fell into a deeper note of silence, as if every movement and motion of the assembled royals and dignitaries was stilled all at once.

A thin man wearing a plain grey feathered kaftan walked alone, lightly handling a sable-wood staff topped with an opaque white stone. For all the splendour of the Inner Families, and the warmth for receiving their own in Dliston, there was an unmistakable intake of breath from the whole court at the simplicity of the man who walked between them, the man unnamed. Inspiration as well as trepidation, for there was no greater indicator of the changes to come than this man who was to take their Princess-Elect, whose part to play as her primary advisor would bring prosperity or ruin to the Adukwe Family and the Ashitlan region as a whole.

Once they had carefully walked up the three long steps to the stage, Celeste was surprised by the person who confronted her. They were younger than she expected, sallow skinned as if they had lived most of their life indoors, or below ground she thought. She observed them

had assembled and while they confirmed their plans to suffer the prospect of a seige, a landship had been spotted on the eastern horizon flying the Royal insignia of Family Toloese. What they had feared over the past months had come to pass, and the Toloese erGan had threatened the annihilation of the city populace from the forecastle of the landship only a few hours before. It was therefore a surprise to see a Lord Ubarak of Family Toloese sweep into the hall with his entourage, the grey feathered robe of his Mage amidst them, enforced by four Royal Guard in full battle armour, the five suns of the Family Toloese emblazoned on their chestplates.

It was late, the braziers lit, the glow of coals supplemented by torches, and Shef Aclimas awaited atop the stage at one end of the hall. Aclimas recognised Lord Ubarak from the phantasmagorical audience Aricir had arranged days before. He had not been surprised when the landship had been sighted, and so he played on his foreknowledge, effecting a confidence that elevated his standing amongst his Gal associates. His confrontation with Lord Mbolo a year past had fabricated a legendary quality to his presence and there was nobody else the Gal potentates would rather look to when engaging the Solozo overlords. Aclimas was thus bouyed and supported by the respect of everyone present, yet he also knew that the four Guard alone could repel indefinitely an assault from any number of the Shef's own soldiers, Royal Guard in name only having recently been upgraded from militia. But soldiers weren't what protected them, it was their city walls. And to counter the Lord's Mage, his own Mage Aricir whom Aclimas now made sure never left his side.

Ubarak stopped at the base of the steps and collected himself while his people behind came to rest, his personal Guard snapping to alert, immense and threatening.

"There has been a misunderstanding," intones Uburak, his soft tones filling the Great Hall, enjoying the temporal dislocation.

Aclimas frowned. To hear Lord Uburak's wording when before they had communed meaningfully and transparently. Aclimas was shocked as he became aware that his language, any spoken language, obscured more than it revealed. Never had the act of wording revealed such paucity of spiritual engagement, and Aclimas' confidence in the verbal skill he spent a lifetime to master was suddenly brought into question. As he began to reel back from the shock, he felt a nudge and his attention was returned

acutely, trying to discern some clue of their thought or feeling upon meeting her, but their face was expressionless, their eyes vacant.

“Your servant awaits your instruction, my Princess-Elect of Family Adrienne.”

The man bowed and remained there, subservient, revealing the self-seal tattoo on the back of their head, a blue triangle.

“The Princess-Elect of Family Adrienne welcomes her Mage, Celestsel” she said formally, and hesitantly laid her hand on the tattoo. It felt smooth and cold, like wet stone, not like skin at all, before withdrawing her hand. The man raised their head and Celeste felt cold and isolated, as if shrunk, the warmth of her body suddenly far away, the many people around her distant. She somehow felt sealed within herself, and an icy fear gripped her, shrinking her further within herself.

Meanwhile, the Mage Celestsel had lifted their hands and placed them carefully on the soft white down covering the starched shoulder flutes. The hands fisted and Celeste felt the structure shake under the tight grip. She questioned their expressionless face. Their hands pulled apart suddenly. The starched cloth material tugged and tore. Celeste returned to the present, shocked.

The Mage gripped another two handfuls and tore them apart again, ripping the chest cavity open. Celeste remained frozen, horrified. What were they doing? How could they be doing this? Calmly they ripped open the dress again.

Celeste looked around and saw everyone still in place. Nobody came to her rescue. They seemed as shocked as her, hands to mouths, their eyes wide.

The Mage placed their hand flat on her face and pushed, pressing the makeup across her cheek, her mouth smeared, the crystals of her eyelashes caught on her eyelid and scratched her skin.

Finally, the Mage Celestsel stood back from their destructive work, took up their staff and found their place in her royal retinue, behind her and to the left. She wanted to turn and look at the Mage, but the costume’s structure prevented it. They stood behind her. For the remainder of her life they would be there, making a shadow of her, and she knew that even face-to-face their deepest motives would be hidden from her. For it was well known that the motivations behind the Magestry were inscrutable.

to the Toloese Lord whose obscurity and duplicity of language was usefully employed as an offensive tool, a weapon: could the Toloese be backing down? Were the Solozo showing a sign of weakness? Was a Lord admitting their fallibility? Aclimas was surprised by this possibility, and he marvelled at the potency of his newfound expansion of awareness. Wonder upon wonder!

Ubarak moved to the side, and a short woman dressed in rough leathers stepped forward. Her dark, unkempt, tousled hair partially covered her face, and she wore two knives in her belt characteristic of the barab. Why might a Solozo Lord present a barab woman...? Yet she wasn't in chains, she wasn't a captive.

The woman proceeded to walk slowly up the steps. Her manner charged, and for a moment Aclimas worried that it was to be either a bold and flagrant physical attack upon him, or this woman was going to transform before his eyes into some powerful witch-hag who might rend the mind from his body. The double doubt pincered his mind and he took a step backwards, sideways glancing to reassure himself with the presence of erGan Pfade to one side, and his Mage Aricir on the other.

The pace of the woman slowed as she reached him, divesting herself of the rather bawdy way the barab walked. She straightened, her chin lifted and Aclimas could see through the grime on her face, the proportions of her lips to nose to eyes, her eyes... Slowly it dawned on him — it was Celeste!

Aclimas stepped back involuntarily, "How...?" he blurted out. "Magic..." he said and turned to his Mage Aricir confused.

Not responding to the Sheff, Aricir stood motionless, his eyes drawn thin. What was apparent, was no longer real. To all present, an incomputable number, a veil of illusion was to be removed.

"Family Adrienne rejects the selfish aims of Ashitlan," commanded the barab Celeste cutting through the ritual of court and the role of Sheff, a visceral blood-presence penetrating the bureaucratic words and office shielding Aclimas.

"My Lady! You misunderstand," coughed Aclimas amidst a fog of confusion, and regaining some poise, continued. "The State of Ashitlan welcomes their Mother! Only..." and he trailed off as he glanced at the dignitaries assembled to his side, searching fruitlessly.

"We replenish our faith in Bunto," declared the barab-dressed Celeste,

Celeste stood upon the stage, her costume in tatters. She felt naked though the inner chemise remained intact, her face a smeared mess of makeup and tears. She felt exposed, violated, and alone.

Mage

“I don’t want to see them,” said Celeste, afraid.

Lady Yidran shook her head, her thin mouth, narrow eyes and pronounced cheekbones accentuating the most recent style of masq. “You must,” she beaked sternly, her hawk-like features accentuating her stern instruction.

“After what they did!” Celeste said. “No!” she barked adamantly and turned her back to Yidran. She had been violated in front of her people, and not one had stepped forward in her defence. She did not fear Yidran’s rebuke, or any of them.

The door opened and Celeste whirled round suddenly afraid. A tall, thin man walked solemnly into her chambers, tidy white beard and white short hair, wearing the usual grey garb of the Magestry. Celeste had several personal lessons from the Mage Xala over the years, a kindly man deliberate in speech and thought. They were the first to draw her attention to the very fact that she thought at all. Teachers would drill her in grammar and rhetoric, numbers and logic but it was Xala who introduced the distinction between rax and real, what commoners understood as magic. They occupied a fond place in her heart, but she felt nothing for them now. She felt nothing but relief it wasn’t that despicable fiend, her Mage. She spat the thought out of her mind: *her Mage*.

“She is being obstinate,” chirped Lady Yidran. “Persuade her of her best course,” and swept from the chamber leaving only Celeste and the old man.

What could they possibly say to make up for their passivity during the ritual? Nothing. They could say nothing. Nobody could.

“The ways of the Magestry are inscrutable,” remarked the old man, as if concluding.

Platitudes, she thought. Where was the wisdom of old men now? The old maid Yidran was no longer required, Celeste was no longer a child to be instructed or corrected. Neither was she an innocent to fall for the old man’s magic.

her enunciation clipped and her authority unmistakable. “The city of Bizapul is to be returned to our Solozo parents the Royal Family of Adukwe and their parents the Imperial Family of the Pharaohim, so that Gal and Solozo and all peoples re-constitute the body of the Empire of Urb.”

“The Toloese are our parents, and we must be wary of incurring their wrath,” recovered Aclimas, nodding respectfully at Lord Ubarak who stood aloofly amused at the bottom of the stairs. Aclimas returned his attention to Celeste, an avuncular tone returning to his hushed words: “Much is different when you last stood on this stage, may I advise you on the great dangers —”

“I have experienced the danger first-hand, Sheff of Ashitlan. Neither the Solozo nor the barab, and certainly not the Gal, are a threat to one another. We are one Family, and we face the same danger.”

The barab Celeste turned to address the congregated Ashitlan officials which Aclimas has searched only a moment before: “Or have I been ill-advised?” she asked pointedly.

From their rank dressed in extravagant finery, out stepped a courtly Celeste.

Both Celestes faced one other.

There was an intake of breath by those nearby enough to confirm that despite their contrasting attires the Celestes were indistinguishable from one another in presence, an inspiration which spread to others, a tremulous whisper thunderously nervous with questions.

Family Politics (from Silver Thread)

“Why do you waste your time with these visits to the Outer Reaches? You have the vital blood of Solozo beating in your heart. Your ancestors which brought the Ever-Giver to the world. Before Bunto, these Twilighters lived in constant turmoil, wars, untrusting of their own shadows!”

So the images unrolled before the prince: the Urb Empire, the heartlands transforming into a beating heart, the brightness of the sun shining down upon the world in shadow, a battle seen from a bird's eye view yet detailed precisely down to each soldier barely larger than crumbs, gradually magnifying, lighting and focussing in on one barab warrior, standing alone, his weapon drooping in his hand, his head

“You did nothing,” she whispered, her throat tight. “You stood and watched and did nothing.”

She seethed within. It was not a burning heat like anger. It was cold, void of emotion, where her love had been. Yet the feeling had form, something she could shape. She directed it at them like the point of a knife, piercing them. Whatever the old man had wanted to say was transfixed and they stood silently.

After a time she turned to face them. They withered in her cold stare, seemed to age. What they had worn well before, now sagged, their shoulders drooped, their face lined, their eyes which once sparkled, dulled. “Well?” she asked.

“You are learning,” they said calmly. “It is a hard lesson to bear. For all of us.”

Xala’s spirit had in fact wavered when they witnessed the Mage’s assault. It had not manifested as movement, not because of fear of retribution nor the paralysis of confusion. It was awe. It was beyond the old man’s conception, beyond anything anyone could have thought. Xala now stood before her, witnessing its effect on their student, no longer the girl Celeste they had known. Now, imperious in her demeanour, the Princess-Elect, how she looked down upon them with such disdain. But they knew this transformation was temporary and born from weakness. It was not a thing to last.

“It is only half the lesson,” they continued. “You must complete it. And before seeing others, else you do them harm.”

“Did you know what they were going to do?” demanded Celeste. “Was it arranged? Was it a thing staged by the Magestry?”

The old man looked down apologetically. They lifted up their eyes and the Princess-Elect was ice. There was a danger that the intervention had caused more harm than good. That it had excised the best part of her, her sensitivity, her love for those around her.

“No,” they said.

Her eyes burned the silence between them. She whirled away unsatisfied with their simple answer.

“If you choose not to see your Mage, you shall experience their unwanted presence as another violation. As Princess-Elect, remain resolute in your new-found poise.”

She snorted. Advice. Words. That is all the old man had for her.

bowed as if contemplating its own shadow. Go on, thought the Prince, shake hands with your own shadow, which it did.

Ubarak glanced over at his sister who was not paying attention, engrossed as ever in one of her xan-axim plays.

“Why bother with these peasants?” asked his father who motioned termination to his ka-Meherim, the vestiges of the warriors dissipating as his father’s attendants stepped back into the shadows cast by the many pillars of the vast hall they were in. Father stood before son. A tall man, even amongst the Toloese, and unlike many of his peers who had fattened with age, he held his figure. A striking face, still boyish with small nose relative to wide jaw, a deep source to his pride and arrogance. He was wearing a rich deep-blue kaftan embroidered with gold thread resembling paired dendrites spaced every inch intertwined vertically from hem to collar. Quite demure for him, thought Ubarak.

“I wanted to return to something real, my Lord,” replied Ubarak.

“Then why not go there yourself? In person?” asked his father. His voice was losing something of its expressiveness, thought Ubarak, or was he losing the ability to hear his father’s sarcasm: was he being serious — to visit the outer Reaches in person!

“It’s the smell,” his uncle interjected. “It puts anyone off. The Two-faced are notoriously unclean, not just by blood but in their habits.”

Uncle Aduk sat nearby, alongside his siblings and cousins and other relatives who were lacklusterly fingering the delicacies prepared for them. Choice fruits from the four corners of the empire continuously on offer, and duly ignored. Each sibling was distracted by their own xan-axim plays, sporadically expressing a note of joy or frustration according to the drama they were experiencing vicariously, absentmindedly popping a piece of fruit into their mouths, tastelessly. Their eyes were dark, sleep-deprived.

His father and his brother glanced at one another, an echo of laughter between them.

His uncle spoke. “You needn’t alarm yourself with the barab, nephew. There are more pressing politics which ought to concern you.”

Ubarak waited for his uncle to continue. He had picked up the behaviour from his father. To allow people to continue with deliberate silence. It wasn’t about letting them go on heedlessly. They were like an obedient dog, checking at all times that their master was there, by their

“Will you remain here in the room with us?” she asked quietly.

“They have asked for a private audience,” replied Xala.

What power did her Mage possess to have such effect on the old man? Xala, the highest standing Mage in the province, highly respected in court, reduced to a messenger boy, an old, wrinkled messenger boy.

“Send them in,” she commanded before reason or fear could take over. As she heard the door close behind them, she felt alone once again. She began the silencing technique, ironically taught to her by Xala herself. She closed her eyes and breathed out, halving her feelings. She observed the high and low moments of stillness and held the bottom of her third out-breath, the emptiness of her lungs, against the willingness to breath. It had a different quality now, colder, at the hard edge of death. No thought wisped her away to the concern of others, no warmth.

The door opened and though her heart rate increased, the blood thumped in her ear, she retaining her empty state, nothing but cold isolation within.

The Mage stood behind her, just as they had when she was on stage. She could not remember anything that had happened between that moment and being here in this chamber. The faces of all her people before her, fixed as if in glass. It was as if nothing had happened in the intervening period.

“Why did you do it?” she said. Her wording broke the emptiness and cold feelings iced suddenly to hatred.

It did not happen. None of it did. You know this.

Celeste spun around and glared at the Mage, his thin-lidded eyes and bone-dry skin, they were abhorrent to her. She collected herself and with steel in her voice, pressed the question: “Why did you do it!”

The Mage deflected her hard intent with a respectful nod and proceeded. “I am a tool in your hands. What you do with me, will determine the fate of all worlds.”

Celeste shook her head. They didn’t make sense. They had violated her! In front of everyone! What kind of tool does that?

“The learning of the knife,” said the Mage. “Before the cut, a child. After the cut, an adult.”

Celeste stood motionless, mid-breath. Her mind still.

“Explanation serves little purpose, before the fact. Return to what happened when I bowed and you touched the back of my head. *Before* my

side. It was not right for them to run on, nor drop behind. Our attention is more valuable than gold itself, his father had said, which was true.

His uncle continued by recounting how the thin-blooded Families of Adukwe and Beredin were attempting to enveigle their way into the Imperial Family of the Pharo him, bypassing the prominence of the Toloese. It was imperative, his uncle was proposing, to maintain control of the territories by fostering pure *half-blood* heirs. By offering the Pharo him native Gal brides, not Solozo, it would strengthen the local race while weakening the lesser Solozo families. The Pharo him could welcome a new form of ally to maintain power over the Reaches. Whether they liked it or not, the lesser races were going to play a greater role in the global politics of Urb, even if they did not have the spiritual strength to present at the Imperial court.

Ubarak was having difficulty following the politic when he suddenly became aware to whom uncle Aduk was speaking: Ubarak was a piece of furniture, a foil to make a point in an ongoing conversation with his father. Ubarak felt the blood rising in him.

“There is one thing I’d like to share with you, my Lord Fathers,” said Ubarak, his uncle awaiting a response from Father. The silence relaxed, and Ubarak took the opportunity. “From the lessons you have distilled in me, my Lord Father, one thing stands out. There are always two threats: revolution from without, and rot from within.”

He had his father’s attention now. An opening. He could also feel his father’s retinue of Meherim concentrate on him, not least of which was his father’s own personal Meherim, Adembokob, a tall and gaunt Hazadian with a hooked nose, drawn face quartered with age, sunken eyes and downturned lips, casting a shadow of disdain on all before them. Ubarak had grown up under that look. It had taken considerable efforts by his own Ubarakar to effect a mental shift such that the old Meherim’s presence didn’t cast him back into the seven year old boy he once was, afraid of the old sage, who was old even back then. Instead, the Prince held the old man’s disdainful gaze, his inner resolve sinking fast. He re-addressing his father, whose solemn gaze took measure of his son’s temperance under his Meherim’s sour attention.

“It is wise that my betters comprehend the longer play that my young mind can not conceive. But there are changes afoot whose timescale is more immediate, less than a decade, and thus falls within my limited

action.”

Celeste felt through the cloud of shame, the horror of her exposure in front of court, the violence of their act. It was so unexpected. She relived the powdered, shuddered rending of her dress, her cheeks scratched by the sharp gemstones caught in the mud of her smeared face-paint. Before...? What had happened...? She had felt alone, isolated. And she vaguely recollected her response to the Solozo Lord Mbolo, her embarrassment of her costume, had felt the urge to tear it off herself.. Was this what the Mage referred to?

“I reflect the moment of your mind. It was made real through me. It was not my action. It was my re-action. I am a tool, for your presence. You in turn must learn to be a tool, a channel, a mirror for a presence greater than ourselves. The effect will continue to ring out, like the reverberations of a bell struck. Where others hear noise, we hear music. Where others make hate, we make love.”

Celeste coughed, felt released suddenly, taking a step back she swallowed hard then laughed in disbelief. “It’s not...” she spluttered, “...Love!”

“In my action is reflected their inaction. Was it my reaction which hit you, or their inaction? Relive the experience fully, others like it in your life. The answer you derive determines your suitability for the task ahead for us.”

Celeste stepped forward and controlled herself. She wanted none of their magicks. They were serious. What task were they referring to? Her role as Princess-Elect? It was all happening too quickly, the experience, this wording...

“We will have this conversation only once. Even when you return here, relive what is said, never the same the first time. Never with this first present-intent. Attend fully.”

Celeste felt her state of presence intensifying. However many times she returned to this moment, it could not be repeated. She imagined herself that night pondering over the day’s events, tomorrow, years ahead, all of her selves stacked in the future looking back at today’s events, yet never like now. She would never forget the events of the Reception, but would she recall this conversation as easily? Celeste returned to the sallow-skinned man before her. What were they doing to her?

youthful purview. I have extensive experience of the fifth state of garsu” — Ubarak adopted the Meherim nomenclature purposefully — “the roving eye will surely free us from mortal concerns, but the volatile inner world of the Twilighter is less ammenable to union.”

His father regarded him for a moment, a moment of judgement, then spoke. “Do you hear, brother? My son, third of my line, is not just playing games, but is conducting significant psychological investigations on the Twilighter.” Yes, thought Ubarak, I can definitely catch the sarcasm in that one.

His father held Ubarak's gaze in silence, a protective warmth catching his son's prickled attention, before hardening and brightening and transforming, his kaftan thickening and densifying into plate armour as he departed for the balcony. His Meherim retinue worked quickly to rapidly expand his father's frame, and it took only three bounds for him to reach and skip over the ledge, his blade drawn and singing as it cut the air. By the time he landed on the plain below he would be a titan awaiting the thunderous arrival of the Pharaohim's entourage, the foundations of the mountain already trembling the castle walls at their approach such was the awesome power of the Imperial Meherim's rax.

Matter of factly, Uncle Aduk rose from his seat and joined Ubarak. “Tell me more, young Ubarak.”

Disappointed with his father's rebuke, Ubarak filled the space with words. “I believe we must make an intimate understanding of the Twilighters, not in relation to ourselves and our politics, nor of the form that we have made them, which is in all intents and purposes a borrowed light, an imperfect reflection, but in themselves inherently. We must gauge the effect of garsu, rax reality, upon the Twilighter mind, directly.”

Ubarak stopped with a forlorn sigh. His father was ritually attending warcouncil, an Imperial display of power for the thin-bloods... adult affairs of state as tasteless as the foods before his relatives. Presently, he became aware he had said too much. It stung. He had been indiscrete. He drew his attention to his uncle. “Why does my uncle want to know of the wayward aspirations of his lowly nephew?”

“I merely wanted to cast light upon what was being said earlier,” replied his uncle. “The golden age of Bunto is no more. As you are aware, my nephew, below the surface there are many divisions, by blood and wealth. This half-blood heiring with the Twilighters may reprise

“We experienced an intervention,” said the Mage. “The natural flow of things was interrupted, as I sense it is even now.”

“What do you mean, *intervention*?” Celeste asked. “By what?”

Her question had a peculiar effect on the Mage. They closed their eyes and remained standing there, without breath. As she recognised the technique she had herself just used, Celeste realised the Reception was exactly the time to use it, when she was overwhelmed, or just before the stress had mounted. It had happened so quickly, unexpectedly. What was the Mage feeling now that they were invoking the mind-calming practice?

“You may think of them as angels,” was their considered reply, wording accurately. “They are assembling from the future to be with us now.”

Angels! Could the Mage really know about the old ways? She stared at them in disbelief: that a servant of the Father-God-Emperor would say such a thing, and yet something within her sang as if a chime struck. The private prayers only she and her mother shared — could they be heard? She involuntarily brought her hands together, felt the pendant beneath the chemise, and within her breast her spirit alight.

“There is much intervention at this time.” They paused, aware of things unsaid, unthought. “Three ordeals will follow,” they warned, “not of my hand. Far more dangerous than a broken costume, a social death before your subjects.”

What dangers lay ahead? She had dreaded the evening’s event, feared the shame she would re-experience before all the important people of state. They had seen her defiled earlier that day, how could she face them again? Is this what the Mage meant?

“By accepting me at your side, you overcome your fear. That is how people will fear you. Like a sword at the Guard’s side, sheathed, so I shall be at your side. Use me well.”

For all their ceremony and declarations of loyalty, they had done nothing. How dare they face her? The Mage was right: there had been an intervention. Something had touched her that day just as she touched the Mage’s self-seal. A fearful thing. And though her fearful shrunken state had ebbed, she was left with an unsettled feeling, an object within a field of vision far greater than herself, and yet equal to. It was as if her life, everything that led up to that moment, was a shadow. A brightness infused her that was not her own.

Bunto, yet equally enforce a Solozo split between Royals and Imperials. It is a risk. The rim may shear from the hub.”

Aduk allowed the words time to process in his nephew’s mind. He repeated them as a whisper, gestured for his Meherim to leave them and began walking. Automatically, Ubarak signaled Ubarakar to leave, and fell in step with Aduk who continued: “*Revolution from without, or rot from within.* Your observations align with my own, but your mission in the Outer Reaches escapes me. I am curious to know more.”

Ubarak found himself voicing his thoughts. Without his Meherim’s protection, he felt the beguiling receptive influence of his Uncle’s manner and succumbed, concluding: “We make the world to suit us, however a danger is growing in the West, and I believe we need the Twilighters to help us reveal it.”

Now that he had his nephew’s sole attention, Aduk stopped in his tracks and faced Ubarak directly: “I do not pretend to know the relationship you forge with your Meherim. My brother and his, me and mine, you and yours. It is a special thing, an advisor, a second conscience, but remember this: the Meherim play a deep game.”

Seeing that his nephew was paying intense attention, Aduk squeezed one eye thin as if making a difficult decision, then continued. “Their game is deep and wide. Whatever your Meherim reveals to you, it is but one voice amongst many. They are not as unified as they pretend to be.”

It was a novel thought for sure. The Meherim had their personal rivalries, this Ubarak knew, but political *factions* within the order of the Meherim... was previously unthought. His uncle was old, but there was still something to him that Ubarak respected, something which was not of his position and bearing. An aspect of rebellion, rejection, a quiet insurrection against all things, all thoughts, even against the Pharaohim. There was a thorn in them, he and his uncle, which their souls snagged on, which never let them rest. The Prince disliked seeing it so clearly in his uncle. The reflection was distasteful.

“If there is one thing I would advise you, Prince of the Toloese, it is this...” his uncle invoked a formality between them, and because they remained close and intimate in their communication, Ubarak felt this was a calling to something deep within him, a personal thing not a formal rite of court. “Do not be fooled, my nephew, they feed us a little at a time, a little of what we want to know, and a little of what they need

You are not your costume. You are not the Princess-Elect.

She felt that she was missing so much, felt the moment slipping past her, like she was running on water. Between the past and the future, the enquickening presence of her Mage. What could be mistaken as fear, was alertness. The presence of an angel perhaps? Were she courageous, perhaps its presence would reveal something different? An insight...? What was clear was that she was not to be afraid of the Mage, nor their reactions to her. In fact, in the coolness of her mind's eye, she could see that they had made her a weapon, just as the Guard was made a weapon by carrying a sword.

"In the interest of efficiency," the Mage Celestsel continued, "in order to accelerate our trust, it is imperative that you share the threads unseen which are being sewn together in today's events. The social fabric between us strengthens as a result."

Celeste shook her head, closing her eyes and trying to retain a sense of what she had just felt. Her fear was gone, but an anger towards the Mage remained. Resentment: it just wasn't fair.

"You do not have my trust yet!" she said, glaring suddenly at them. Whatever magic the Mage had caste upon her, on all of them, she would not so easily let it pass. They had not even apologised! Yet, despite how she had felt at the start of their conversation, she felt empowered now. Through their actions, her Mage had distilled all the social capital amassed at today's reception, something she had felt as an enveloping mist throughout her life, and handed it to her like a simple glass of water. She felt a strain within her, relieved. "Let us continue when I am rested," she said, suddenly tired.

"There is much to prepare before your night's dreaming," said the Mage Celestsel, bowing. "Factors beyond our vision to contemplate," they added enigmatically before taking their leave.

As the door closed, she collapsed upon a padded bench. How could she consider things she did not even know? She rubbed her eyes. It was already impossible to keep track of what had been done and said to her. The day was half done and she was exhausted.

Slowly she began to cry. Softly, for the girl she no longer was, and the woman she was to be.

us to know. But beware: follow your own path. Otherwise we are caught in the web that the Meherim spin around us. If you are to embark on the fourth state, promise me this, nephew Ubarak, take every precaution.”

They parted and on his long walk back to his quarters, Ubarak deliberated whether he should share this insight his Meherim Vizier. Ubarak realised why his uncle had paused before divulged his suspicion of the Meherim motive, cautious that it would cause division with his Vizier or perhaps reflect badly on Aduk himself. The politic left him poised as if on the edge of a blade. He felt alone, as he walked along the corridors and up the steps to his quarters, more alone than he had ever felt. Was this the price of the game he was to play? That he could not confide in anyone? And if not *anyone*, what else could he confide in?

Next Steps

Co-originating A Real Story

Who better to continue the narrative than those who resonate with their character, imagining themselves in the fantasy world? So readers become writers, imagining the world to be, both fantastic and real. With rapid generative production cycles, so film, book and game narratives evolve as AI phases from silicon to quantum amid environmental stresses and human social shearings. Upscaling any film ever made, we immerse ourselves in any world we choose, active participants empowering our agency to make fantastic leaps of imagination while enabling each of us with practices which resolve our shared realworld dilemmas. The Mirror Mosaic.

Contribute to the extension of any Volume, explore the world of our own making in better service of the natural world we have inherited and of which we are wholly part. May all peace-workers see all conflict and wars become virtual, mythological, while we share the real abundance of our natural, embodied heritage. Let us scare one another with childish fears, and laugh together as adults at our youthful foolishness.

What stories shall our children's children entertain in 2100, 3000? What shall knit the social fabric of their childhood, their lives? A dystopian world of division, with islands of leisure amid a hell of labour? Or a heavenly virtual culture furnished within machines, at home in our shared organic world?

Origins

Fiction v Fact

While awaiting the reboot of Ecosquared as Sqale (V3), a singular idea came to me: garsu, a crystal which augmented the mind's projective capacity. Around this single idea, my work in maths, education, social engagement took shape against the backdrop of Artificial Intelligence (AI). The first book wrote itself, *Adventure to Everdark*. The second, a year later, I compiled and then fleshed out as *The Purple Braiding*, a narrative following Celeste, a Princess selected to marry and mend racial differences. The third, *Book of Beginnings: An End to Civilisation*, consisted of incomplete short stories over the years. The hope was that at some point I would produce a 'seed crystal': a story which contains the writing style and structure that leverages the power of the reflexive reader (V1) empowered by ecological economics (V3).

While the world descends into the confusing virtuality of Augmented Reality and Artificial Intelligence, with the ever-present risk of political and economic collapse and mounting ecological disorder, I feel we can release our grip on the 'real' which incurs a fatigue both mentally and spiritually, and pursue similar tropes in the more forgiving reflections of fantasy.

We are originals. Each of us. Miraculous and mundane. Precious and undervalued. Each of us authoring our lives, threading the fantastic and the fictional, contributing to the ongoing tapestry of our lives. And soon, within this social fabric, the emergence of multiple artificial general intelligence, equally original and curious and frighteningly multitudinous.