## Love at first byte

*Stormy thoughts dart around the quadrants of my brain. Electric veins activate that love impulse. As the pixels part, my perfect partner is redrawn before me. We jump, swooning, seamlessly surmounting the synaptic cleft, flying fearlessly between the realms of hard and soft reality. Once bitten – I'm totally smitten.*

## falling in love

It strikes at odd times, descending like a summer cloudburst... soaking you unexpectedly before you reach cover, before you a can defend against it. Sometimes we walk in the rain to enjoy its sensory pleasure, it's refreshing bite, its soothing warmth, the delightful playfulness on our skin. Sometimes we get wet. Sometimes we are enthralled by a performance, sometimes we coldly rationalise the improbable nature of a scenario. The pinnacles and precipices of judgement - those elusive processes of making an instantaneous decision between restrained annoyance and exuberant immersion, are both powerful and unpredictable.

*he was unsure about what attitude to strike, so disappeared endlessly to re-dress for the crowd who had gathered at the Odyssey exhibition opening. Image management becomes so much more complex when the choices are endless, the only parameters being the number of prims you can fit in the sim before it slows down.*

*his consistently poor fashion choices - the neurotic slippage of indecision around his online physicality touched me... i sensed a kindred spirit, and... it felt oddly like i was falling in love.*

Don't get confused here. I am not talking about lusty love or sex drive; nor am I referring to that deep companionate love associated with comfort, attachment and parenting; but that other all powerful, all-encompassing emotional and physiological love. Being in Love. Passionate love. Obsessive love. Divine madness. Limerence.

## limerance?

Limerence is an involuntary cognitive and emotional state in which a person feels an intense romantic desire for another person – a constantly distracting obsessive infatuation which can last for months, years and occasionally a lifetime. The term was introduced by American Psychology Professor Dorothy Tennov in her 1979 book *Love and Limerence – the Experience of Being in Love*. It can be experienced as a sensation in the mid-chest accompanied by intrusive thinking, intense joy or ecstasy at times of mutuality, and extreme despair when feelings are not reciprocated.

Those smitten can have extreme physical manifestations such as sustained alertness with a heightened sense of awareness, endless energy, heart palpitations, trembling, pallor, flushing and pupil dilation. Sometimes limerence presents as awkwardness, stammering and shyness, with nervousness, anxiety and worry that any action may bring about rejection.

> *also had a peek at your Facebook profile, but I'm not stalking you, no seriously...*
> *I really like The Diamond Age too...  so much more generous and inspiring than the Baroque Cycles which were a bit... uber-researched*
> *and yes to Deadwood and Dexter too!*

Tennov is generally not well known outside pop psychology, however she has been rediscovered in the last decade by commentators on the societal impact of technology such as Alison Lewis - "Tennov's characterisation of the state of limerence seems to me to be an accurate paradigm for what can happen romantically in the virtual world, even though she originally wrote about it well before the age of the Internet." (Lewis 2007)

Lewis takes a rather pejorative view of this online behaviour - "cyberspace appears to offer the ideal environment for the imagined state of 'love' to germinate and blossom, providing cyber-based relationships with all the criteria that limerence needs to occur and to continue. These are: attraction combined with hope and obstruction equals limerence." (Lewis 2007) Unavailability and obstruction, it seems, make the limerent object even more desirable. "For the process to fully develop some form of uncertainly or doubt, or even some threat to reciprocation must be present." (Tennov 1999:26)

Image 1: Limerence strikes like a Cloudburst

## on love

In *On Love* Alain de Botton laments the "long gloomy tradition in Western thought [which] argues that love is in its essence an unreciprocated Marxist emotion and that desire can only thrive on the impossibility of mutuality." (2006:48) Citing many texts including those of   prolific 19th-century French

Romantic realist Stendhal,[1] De Botton struggles to understand how her can be besotted by a woman he hardly knows or has little in common with. Stendhal - a dandy and wit about town in Paris, as well as an inveterate skirt-chaser according to Wikipedia (2008), was equally fascinated by, and motivated to write extensively on, unrequited love. Although he had an obsession with sexual conquests, he seems to have genuinely preferred the desire itself to the consummation.

This is not surprising given Stendhal suffered terribly from his syphilis treatment of iodine of potassium and quicksilver - resulting in swollen armpits, difficulty swallowing, painfully shrunken testicles, sleeplessness, giddiness, tinnitus, a racing pulse and tremors making it difficult for him to hold a fork or his pen. Despite this he describes the "birth of love" in *De L'Amour* (1822) (*On Love*) in which the limerent object is *crystallized* in the mind, as being a process similar to throwing a lifeless, wintery bough into the salt mines at Salzburg, where it will emerge two or three months later unrecognisable - covered with a deposit of sparkling diamond like crystals. At the peak of crystallization almost every waking thought revolves around the limerent object. This transformative process of being deeply immersed in the state of love is an involuntary physical response - an instinctive movement towards the other. (Stendhal 1975:45-47)


**travel broadens the mind**

> *... scored a super internet deal on a tiny single room at Grand Hôtel des Bains, where Death in Venice[2] was written and filmed.*
>
> *i don't have wireless and the room isn't lush  - tucked away at the back of the hotel overlooking pines rather than the private beach, but has a massive bed, high ceiling , slightly shabby C19th furniture, and an obligatory marble bathroom. have had three outfit changes in the two hours ive been here...  arrival outfit;*

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[1] Stendhal is pseudonym used, amongst around 100 others, by Henri-Marie Beyle.

[2] *Death in Venice* describes a middle-aged writer/musicians obsessive attraction for a 14 year old boy while visiting Venice. There is debate as to whether it is a tale of pedophilic lust or a story of the attraction to inspirational beauty and aesthetic catharsis - a limerent tale.  Written by German author Thomas Mann, the book was first published in 1912 as *Der Tod in Venedig*, and first published in English in 1925 as *Death in Venice and Other Stories.* In 1971 Luchino Visconti directed a film version (in Italian *Morte a Venezia*) starring Dirk Bogarde and Björn Andrésen, with a score from Gustav Mahler's 3rd and 5th Symphony.

> *swimming ensemble for quick laps in the pool (complete*
> *with statues and Italian poolboys)and lounging on the*
> *sun bed; and now casual but stylish terrace attire.*
>
> *soon i will shut down, stroll around Lido, delight in the*
> *promenade and seafood, then return to the terrace to*
> *observe the scenarios being played out before me,  and*
> *to play with you again online...*
> *xxx*

As it comes about, and thrives on emotional bonding rather than physical contact, limerence is classic drama perfectly suited to the global intimacy of the internet. It is Romeo and Juliet on Ice[3], the longer the potential lovers are kept apart the deeper and stronger the attraction grows. It is a consistently repeated tale throughout the ages, so why does the concept of unconsummated love seem to be such an anomaly in our 21$_{st}$ Century sexually precocious society?

Some insight may be found in Anthropologist Helen Fisher's extensive research on the biology and social processes behind what we commonly think of collectively as "love". It is, according to Fisher, actually three distinct and observable "systems" of chemical process, brain patterns and defined behaviours. Research shows that different reward circuitry is activated in specific brain regions and neural constellations by groups of hormones and neurotransmitters. For example, Lust is primarily fuelled by Androgens and Estrogens, and Attachment by Oxytocin and Vasopressin. (Fisher 1998). What makes this so interesting is that they all are completely independently functioning systems generating authentic experiences which can occur concurrently with multiple "objects".

Combine these seemingly irrational concurrent behaviours with the online experience of being temporarily liberated from our human singularity — simultaneously occupying the three positions of user, viewer and avatar  — and it opens up myriad possibilities for a triple treat of arousing and immersive experiences.

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[3] "Ice" is a street name for crystal methamphetamine hydrochloride, a powerful synthetic stimulant drug which speeds up messages going to and from the brain. The psychological and physical effects can be similar to limerence - euphoria and excitement; increased alertness, confidence and libido, difficulty sleeping, reduced appetite, dilated pupils, dry mouth, nervousness and anxiety.

**amygdala**

> *we meet for a swimming date, lying awkwardly on a grainless deserted  beach, soothed by rhythmically coded waves and a perfect orange sunset. I give you a swim bracelet and our avatar bodies plunge into the translucent blueness, our arms lightly brushing underwater… the slightest touch, perhaps a mere pixel overlay – just close enough for the tips of our body hairs (if we had any) to intermingle, stimulating our electrical fields…*
>
> *shivers of delight cascade down my spine, my reward circuitry activates that aphrodisiac cocktail of Dopamine, Norepinephrine and Serotonin.*

Cold-heartedly, to be "in love" is to be addicted to the anticipation of the chemical release that another person or "object" will trigger, to be immersed in an chemically induced alternate reality. And most humans (and quite a few animals) actively seek out this induced happiness, this lessening of inhibitions, this feeling of wellness and freedom. Unlike our protestant English, other languages have specific words for the at-once liberation and bondage of limerence – for example the German *Verliebtheit* and the Scandinavian *forelskelse* roughly translate to the condition of "fallen-in-love-ness".

This aching for enjoyable emotive experience is not newly generated by our computer enhanced society, although we might be tempted to exoticise the proliferation of the virtual experience over the last few decades. Our human desire for immersion in alternative forms of reality can be traced from the immersive rituals of tribal performance and shamanic trance to today's multi-sensory theatrical and cinematic representations and immersive virtual environments. Today the popularly accessible grid of *Second Life* and many other 2.5 or 3 dimensional worlds are the stages on which these love stories are played out by artists, writers, performers and anyone who cares to join in.

We have always looked to art, performance and poetry (and the technologies which make them possible) to create portals into other realities — whether it be for entertainment or to contact the spirit world. A thread can be drawn from Platonic philosophies through to the awe-inspiring architecture of medieval Mosques and Cathedrals which created transforming spiritual portals through

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fragrant exotic scents and imposing sculptural narratives. Within these spaces the populace was moved to experience a higher dimension though immersion in the emotive flickering of reflective light produced by mosaic and stained-glass technology, and in the ecstatic, resonant and reverberating soundscape of voice and music technology.

## manifest feelings

In more recent times Richard Wagner penned *The Artwork of the Future* (1849) outlining how music, dance, poetry, architecture and painting could be integrated to create a total artwork - *Gesamtkunstwerk*. This concept of an all immersive, all-encompassing art and surround-sound environment makes the physical theatre space the interface with a virtual world, whereby:

*the spectator transplants himself upon the stage, by means of all his visual and aural faculties… forgets the confines of the auditorium, and lives and breathes now only in the artwork which seems to it as Life itself, and on the stage which seems the wide expanse of the whole World.*
 *(Wagner 2001:5–6).*

Underpinned by the orchestra, Wagner believed the collective artwork could "dissolve the hard immobile ground of the actual scene into a fluid impressionable impressionist aether" (2001:8). The experience induced by watching what happened on the "wide expanse of the whole World" could very well translate to an ecstatic transformative feeling experienced in the virtual environment of the "world wide web".

Immersion often feels more real than real, being visually exaggerated and sonically saturated, enhanced and tweaked to produce emotional intensity. It is the hyperreal of Baudrillard, the sunlight in Plato's cave, where, clothed by data, we physically experience emotion through an avatar body. We find it easy to think of ourselves in the information age as melding information and flesh, especially when we engage with multiples of ourselves and others in electronically constructed space.

## alien seed

> *you are the most stable person in my daily life,*
> *touching me in so many deliciously ethereally ways,*
> *much, much more satisfying than local encounters*

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*You are very solid for me too..*
*I think we have met years ago,*
*maybe we did and forgot? :)*



Image 2: The dance of limerence

 Luckily for us, our brain systems do act independently of one another, and indulge in what could be considered highly dangerous thoughts and behaviour by another system. In *Kluge: The Haphazard Construction of the Human Mind,* Gary Marcus persuasively explains why our brain is an evolutionary gaffer tape job (Marcus 2008). He compares human brains, where our rational functioning is

grafted onto our primitive reptilian brain, to a power plant where high-tech computers mask the archaic vacuum tubes which actually regulate all the plant functions. The human brain has evolved for different purposes to today's environment and consequently we make seemingly rational choices based on entirely inappropriate or irrelevant data.

And supposedly we can't help it. Our lack of self-determination is a premise that has been explored in many arenas including Neal Stephenson's seminal pre-cursor to virtual environments *Snow Crash* (1992).  Stephenson proposes humanity is posthuman - at the most basic level information-processing mechanisms merely running assigned programs (Hayles 1999:279). If our bodies process biological, chemical and informational code then what of our sense of autonomous and unique humanity?

Are we nothing more than very complex computers with useful glitches? In the 21st century we take it for granted that we work, rest and play in immersive online environments, our antenna modifies, our physicality flows into the corners and folds of any electronically produced space. We seek and anticipate the frisson of attraction, the shudder and thrill of play. But is it just the serendipitous conjunction of our programming errors which make that material and meaningful? Then the mystery of it all further elevates our Dopamine.

### don't leave me this way

> *It was sorta sweet,*
> *and the snugly beddy bit was just tooooo inviting*
>
> *sorry ! the blood rushed away from my brain, and, as i*
> *had to actually think and do things i had to log out...*
>
> *I'm here and will be for a while yet..*
> *and yeah it can be tough on the brain... :)*
>
> *xxx sleep well*

Online narratives on the love collective - lust, attraction and attachment, are prolific. My early artwork, *Tunnel: Lust in Cyburbia* (1996), explores tensions between different states of sexual experience. In some instances, online lovers easily transmute to well-matched offline lovers, while others encounter incongruities and incompatibility when the coded self crosses the terminal

boundary. This erotic obsessive noir love story plays out to a not so happy ending when the lovers meet physically they experience baffling sexual dysfunction after the physical and emotional pinnacles of their text sex. (Rackham 2008:61)

Similarly, my viral love story *carrier* (1999) is a sensual investigation of attraction and attachment between shifting physical, emotional and viral network nodes – the symbiotic relationship between human, software and machine. The web site seeks to seduce the viewer through aesthetic and textual means - taking them each on a unique intimate journey - melding flesh and data, chemically bonding and exposing the vulnerability of a raw code, be that machine or genome code.  Sharing real intimate experiences created an emotive immersive environment, which almost ten years later, still regularly moves its audience to respond to the artwork via email.

Around the same time Auriea Harvey of *Entropy8*  and Michaël Samyn of *Zuper* were constructing their own love story. The day after Harvey, located in New York, met Samyn, located in Brussels, "in the wires"  he sent her a web page with seductive whispers embedded in the source code. Smitten, she composed and sent a romantic reply. The dialogue went back and forth between them speaking of love, desire, and sexual fantasies, until the luscious *skinonskinonskin* (1999) web site was created. They then opened up their private web world to the larger world in a pay-per-view format pioneered by the online pornography industry. Harvey says:

*We are not just the consumers of technology. We strive to make love with it. Living apart we came together and made the (possibly) first net art pay-per-view project, possibly the last. We make work for people. skinonskinonskin. Love for sale. A project of the 20th century Internet.* (a mínima)

Continuing to work together as *Entropy8Zuper!*  they met weekly online from July 8, 1999 until January 9, 2003 to produce *Wirefire,* where they 'made love' live with an online audience. This was creative love – mixing poetic musings, seductive imagery, audio and visual files, animations, web-cam streams, and their own and audience chat in sensual real-time landscapes. The audience were enthralled and logged on week after week to witness and share in this erotically charged whole artwork.

*Wirefire* operated in three different modes - *Random, Live* and *Replay. Live* was a real-time, interactive performance forum between the artist and the audience; *Random* enabled any viewer to generate new machine-mixed automated performances; and *Replay* is for those that desire to relive a limerent moment. This adult fairy-tale is blessed as today Harvey and Samyn live together in Gent,

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Belgium creating sensual 3d immersive games and complex and intriguing artworks.

Other artists, like Australian Adam Nash, have also explored the terrain of virtual or post-convergent space as a place of audio and visual sensuality. His simultaneously online and physically located performative work *Scorched Happiness* (2004) navigates wildly varied emotional geographies such as aloofness, confidence, melancholia and naivety, with layered, temporal non-representational audiovisual events filling the physical and 3D virtual environment.

More recently he has been considering sensuality and eroticism in virtual space. "Eroticism to me is a sensual playground in the mind of the being-with-a-body... the melding of audio and vision (along with the other media-elements of network, interactivity, database, etc) in the post-convergent space of realtime 3D returns the visual sense to the erotic register, moving the body via the mind involuntarily." There is no need for physicality in Nash's work, with other worldly visuals and primordial 3-dimensional imagery triggering physical sensation, making "a harmonious union/conscious manipulation of mind and body." (Nash 2008)

In his ethereal *Seventeen Unsung Songs*, (2007) Nash addresses this emotional/erotic register - for example the *Moaning Columns of Longing* stalk the viewer, emailing every hour, using guilt and pain as a lure, begging them to return to constantly 'touch' the 3D column to stop it dying from loneliness; while a live internet performance of the extraordinary abstract audio-visual *Cloud Chamber*, erotically entrances audiences. For Nash "Erotic doesn't equal sexual.... To me it implies living rather than survival, and rather than simply a subjection to the senses. It is a celebration of being alive, for there is ostensibly no survival/logical reason to be erotic, it is to swim in an excess over survival[4]." (2008)

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[4] Nash has been much influenced in his work by theorist Elizabeth Grosz who speaks of music being an "excess over survival", (Nash 2008) In *Chaos, Territory, Art* (2008) Grosz argues that art forms such as architecture and music, are a form of erotic expression connecting sensory richness with primal desire. Therefore, the meaning of art comes from intensities and sensations, not intentions and aesthetics.

**cells that fire together wire together**

> *co-incidentally the next time we both appeared online,*
> *our previously slender, sculpted and muscular avatars*
> *had redrawn with a substantial weight gain...*
> *Rubenesque... Gladiatorial...  Super-Sized5 .. .*
>
> *both now  round and jolly, no longer vulnerable,*
> *protected by layers of virtual fat, we feel safely self-*
> *contained. Oddly, our shared anxiety assured each other*
> *that we were not just ordinary residents in this*
> *pedestrian virtual terrain - we were drawn together by*
> *intelligence, humour and quirkiness  rather than the low-*
> *brow attraction of symmetrical physicality.*
>
> *we marked ourselves as transgressively intellectual*
> *pleasure seekers, searching for that quaintly queer*
> *connoisseur experience.*

The power of emotion to influence the physical is astounding - every action is under the influence of our magnificent bespoke pharmacy. If everything we perceive or experience can have a possible relationship with any other experience, the scenarios become finitely infinite. Given that the concepts of our "love collective" are stored in the neural net, associations become stronger as we reinforce them chemically in our long-term memory, or we can chemically interrupt the associations to form completely new patterns.

However, before this experience is codified and quantified, before it even reaches the experience processing plant, it can be corrupted. As Helen Fisher (2006) points out we no longer receive accurate data from most of the senses that our brain relies upon to make life decisions. Many of our vital physiological and emotional data collection receptors for falling in love, being sexually aroused or choosing a life partner are interfered with by SSRI anti-depressants, the most widely used mood altering chemicals in the western world. As well cosmetics, hair dye, perfume, deodorant, cosmetic dentistry, stomach banding, Botox, laser surgery, and so on, all alter the human sensory interactions of smell, vision and

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5  The term Super-Size, from Morgan Spurlock's *Super Size Me* documentary on the physical and mental effects of consuming fast food from MacDonald's, has been adopted by the burgeoning subculture of "feederism", where fat fetishists are sexually aroused by "growing" themselves or their partners, and eat their way to morbid obesity with both "gainers" and " feeders"  indulging in super-sized pornography and sex. (Marie Claire, June 2008:94-97)

touch. What we feel and sense today in every communication and human interaction is already enhanced, already virtual, and often mapping to other-than-intended brain constellations.



Image 3: Contemplating the complexities of Performance : Eva and Franco Mattes *Shoot* performance documentation at Odyssey 2007[6]

It is no surprise then that limerence is not limited to human love objects. Our friend Stendhal, who was fond of portraying love in architectural and travel anecdotes, described his experience of viewing art and architecture during an 1817 visit to Florence. The remarkably similar reaction aroused viewing is noted in his *Naples and Florence: A Journey from Milan to Reggio*:

[6] "Eva and Franco Mattes rearticulate important elements of 20th Century art history with their Synthetic Performances… The remediation of Chris Burden's *Shoot* at Odyessy in Second Life was performed and watched in-world, documented in-world and now documentation is displayed in-world as photographs or video still on the Odyssey Gallery walls. The hilarity of this tripling and folding is not lost on an avatar audience, viewing a remediation of a remediation. Someone looks at something = Art." For a full discussion see Rackham and McCrea (2008)

 *I was in a sort of ecstasy, from the idea of being in Florence, close to the great men whose tombs I had seen. Absorbed in the contemplation of sublime beauty ... I reached the point where one encounters celestial sensations ... Everything spoke so vividly to my soul. Ah, if I could only forget. I had palpitations of the heart, what in Berlin they call 'nerves.' Life was drained from me. I walked with the fear of falling.[7]*

Causing rapid heartbeat, dizziness, confusion and even hallucinations in an individual, this aptly named *Stendhal Syndrome* is considered to be a psychosomatic illness. Instead of an individual, the limerent object is art, particularly beautiful art, or an excess of art in a single location, such as magnificent architecture or a museum. Stendhal Syndrome[8] also describes a similar reaction to the immense beauty of the natural world or the reactions of audiences to music of the Romantic period, and, in homage to the emotionally amplifying experience of travel, the Italian rail corporation named their overnight train from Paris to Venice the *Stendhal Express*.

## resistance is futile

> *so we keep missing*
> *darting like golden carp in a pond...*
> *i just want to cry*

Once limerence loses its chemical hold it usually fades fairly quickly. This can occur through several different routes including being slowly and painfully starved by a lack of reciprocity.  If however obstructions are removed, and the relationship is consummated the limerent ones will either form a reciprocal relationship or find they don't particularly like each other. And of course, limerence can be transformed and transferred via another biological and chemical process to a different limerent object or resonant artefact.

While our software bodies are very capable of adaptation, comfortable with ephemerality and the sensation of operating as shifting nodes, our physial and emotional bodies may be still catching up. They/we may be stretched and replicated, mutated and woven by others, simultaneously existing in multiple

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[7] Quoted in Wikipaedia - *Stendhal.* (2008)

[8] *The Stendhal Syndrome* (1996) was the first Italian film to use computer-generated imagery (CGI). Written and directed by Dario Argento, it starred his daughter Asia Argento as the heroine overcome by *Stendhal Syndrome* while viewing art in Florence.

synaptic terrains, as mirroring neurons create an emotional geography, an immersive narrative, an experience intrinsic to the medium. As 21st century adventurers taking today's *Stendhal Express* through layers of virtuality, we exist in a constant state of flux.  We are always adapting to new spatialities and modes of data exchange, whether it is negotiating a voice recognition phone menu system, interacting with avatars in virtual environments, or rambling along crumbling Venetian Vias.

Low latency connection between people allows for gesture to be shaped by text, for physical proximity to be shared by users, and mood to be shaped and resonated by artefacts and architectures.  Our hot primitive brain systems engage easily with the simplicity and lack of pretension of networked immersion, and thankfully dominate cool reason which tries to tell us that love online (in its many forms of lust, eroticism, limerence, sensuality and attachment) is merely a Pascallian diversion from wretchedness[9].

When we fall in love and scratch what Helen Fisher labels "an intolerable neural itch"[10], we are simply following the directions of a powerful drive, not just acting on a transient jagged peak of emotion.  It may appear to be not in our best interests to fall for an unobtainable stranger, but philosophers, biologists, writers, anthropologists, artists, neurologists, musicians and psychologists across the centuries agree.  We are driven to experience that which we logically shouldn't.

Another summer cloudburst descends, that unexpected portal into an other/underworld, a labyrinth of mystery and expectation. Embrace the rhythmic roar of hard drive hum; the soothing boundlessness of screen space; the responsive touch and reactive resistance of your keyboard; fill your nostrils with the potent scent of electricity. Relax into the encompassing matrix – seemingly all softness and translucence, celebrating exquisite data errors the potentialities of pattern mis-recognition. Let go. Let yourself drift, without resistance, into realms that exceed all expectation.

> *i reached out..*
> *telling a story i didn't know how to translate,*

---

[9] 17th century French mathematician, physicist and theologian Blaise Pascal believed the human condition was so miserable we needed to divert ourselves from thinking of it.

[10] W.H. Auden quoted by Helen Fisher in her TED (2006) lecture.

*etherically embracing my perfect other*
*dissolving singularity*

*I never want this to end...*
*being with you*
*listening to Wagner together*
*at the terminal boundary*

*fare-well*
*love u*
*xxx*

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