BEING THERE IN EVERYWHERE: MEDIA DESIGN AND REPRESENTATIONS OF LIVE-NESS, c.2084

8:30am - Hillside Campus, BioMA+D Studio

Quela's 'Bio-materials for Art + Design' studio was fully twenty-minutes into it's render-vat sequencing demo when she realized, when it struck her fully, that there was absolutely no way she was going to be able to do it. No less than three special topic lectures had been scheduled for that very evening, one of which overlapped with her last studio of the day, two of which ran concurrently and all of which she desperately wanted to attend. The vat-thing sputtered and churned its metastacally charged goo while Quela drummed her fingers thoughtfully on the workbench. There had to be a way!

The first lecture was probably the lowest priority, though certainly not the least interesting - some turn of the century geezer whose name escaped her, who'd recently gotten a lifetime achievement award for stagecraft tech. McKissic! That was it - in any case, she wanted to hear about the old days, before actors could run sims around the real thing. That stuff seemed so easy; where was the talent in it? From what she'd heard, McKissic was one of the last developers of the original holo-sim arrays still living (he was rumored to be 104) and had been working in the field long before that. It would definitely be worth the effort, and besides, he was an Alum, Class of '04.

History was interesting, but not anywhere near as interesting Denkel Sturje's Traveling Nano Emporium. Now THERE was innovation. This guy actually held a patent on 'nano-fog', a phenomenon that, until recently, had eluded the brightest minds on the planet. And here was Denkel Sturje, a latter day PT Barnum, who seemingly through magic (although many suspected Asian technological legerdemain) had somehow harnessed the wee little bots to do his bidding, en mass. Anyway, he had become fabulously wealthy overnight and was the darling of the international entertainment circuit; that he was being investigated on innumerable counts of alleged high treason by a pack of Naval
lawyers was only icing on the cake - you couldn't buy that kind of publicity. Besides, charlatans always seemed to make for more interesting gurus, in her opinion. She wouldn't miss it for the world. But it was all the way over on South Campus and it ran concurrently to the third event, which was...she blinked hard and brought the VALC interface into view, the studio fading slightly - ah! Mehta Panchal, founder of the third largest textiles patterning studio in the world, 'emergence-y™'. There had been an exciting press release some months back that the company had made an important breakthrough for the UILF (United Indian Land Forces) in the development of light-refracting camouflage. Dr. Panchal was expected to give a demonstration that evening, also not to be missed.

Quela scanned the calendar interface's detail nodes and made a quick note to check the D-Trolley departure index before retiring the AR field to her peripheral vision. Micron-sized position sensors within her corneal contact lens-strata told the VALC in which part of the AR field her eyeballs' foveal diameter were directed, information blossoming and withering alternately and at speed, controlled only by Quela's carefully modulated series of slight eye-blinks. This was one reason for the screening effect one experienced when accessing the AR field - without it the surrounding environment could start to look like a low frame-rate sim, depending on your level of involvement with the VALC's info-structures. The Van Allen Library Construct was a peculiar system: the mixed-initiative algorithms inherent in the quasi-AI allowed you to hail a particular application but not keep its attention for more than a minute or so without constant signaling that you required sustained interaction. Quela thought that this limitation had been imposed because of the public nature of the system; so many students occupied the continuum of the VALC's informational terrain at any given moment that it was constantly 'dropping' initiative exchanges to maintain state, despite its massively parallel processing base. So it often appeared to suffer from a kind of dispassionate ADD syndrome, leaving you in mid-decision to attend to some
other task. Because of this, Quela had learned to make swift and precise sorties into the VALC ambience, banishing it before it could ignore her.

But really, the VALC was only two years old and its designers had yet to work out bugs like this. Irritating as it was, the VALC provided an unprecedented support network for the Art Center campuses, available, literally, within the blink of an eye. It had approximately one hundred and seventy regions of awareness, roughly split between the South and Hillside locations; it could assist the College population at large with tasks that ranged from the complex (model simulation) to the banal (inter-personal messaging) in addition to its indexical function as the proprietor of the institution’s vast analog and virtual library catalog. The Von Schlegell sub-routines shouldered most of that burden, though, so the VALC could focus on campus services. The VALC wasn’t ‘smart’ though; it couldn’t have a conversation with you, say, or tell you that it thought you were being obstreperous (though it could provide you with a painfully detailed analysis of both situations). The general trick, though there were certainly other methods, was to access the system quickly, set it in motion with a query or request and then leave it alone. The AR field had a clever asotype vocabulary that showed up in your peripheral when it wanted your attention again. For all their complexity, Quela mused, computers really hadn’t changed all that much in 140 years: they still had their limitations, even if they were based in increasingly advanced architectures. Oh, the way we interfaced with computers had certainly changed, she thought, but the same query + task, input + output relationships remained.

In any case, the vat-thing was grunting it’s way through the final stage of metastatic substantiation and would soon deliver its payload of bio-sculpy. The students were gathered in a loose crowd around the assemblage, which looked like a cross between a steam engine and a hornet, smelling vaguely of rust and guava. Quela was always amused at the way most students sharing her studio assignments were kind of three-quarters present, blinking away, engaged in the VALC (or just stone-tired, which was often the case). There were, of course, a fair number of null-access studios, which forced people to maintain their full focus
on studio work. The BioMA+D demo studio wasn't one of them, though, as they spent a good deal of time simply waiting for the bio-sculpy to emerge, freshly metastasized and ready for lazing. She hefted a lump of the pliant, flesh-like substance (bio-sculpy was essentially a discrete form of benign tumor, genetically harvested from bovine cancer cells) onto her table space and then prepped her green pen-laser. Quela loathed working with this stuff - it brought to mind an imaginary grand guignol of severed limbs and Edwardian-era operating theaters. But it was the only way one could enroll in the more advanced gene-mod studios, so here she was. 'Drawing from Life' was her next studio after lunch. Good, she thought, that was relaxing; four whole hours she could scheme for her attendance at this evening's lecture circuit.

3:55pm - Hillside Campus, 'Drawing from Life'

All right, so she was almost set for the evening. In order to convince the VALC that she'd needed its full attention, she had 'propped open' her conduit by running a slow, real-time trace function on each of the model's poses; detailed edge-detection of this sort still took the system a long time. Her instructor would penalize her if he found out, of course, which he might if she didn't deliberately mash a few of her strokes. Anyway, she thought, the training mode would still help her with her technique while keeping the VALC focused on her logistical queries.

Her last studio of the day ended at 7:30pm and the McKissic lecture began at 7pm, so she'd have to find a way to be excused early from class. Both the Nano fanfare and the camouflage demo began at 8pm, which meant she'd had to decide at which location she wanted to be physically present. Without giving it much thought, she'd decided on South campus, because from everything she'd read, one really ought to be IN a nano-fog to experience it properly. So far she had gotten the reservation sub-routine to hold the D-Trolley's scheduled departure time at 7:37pm for a full eighteen minutes. She'd been forced to arrange this by hacking a false maintenance request into the system's helium
monitoring protocols because the standard delay-request interface had become jammed in her peripheral vram buffer and she couldn't do anything about it without a soft-reboot of her local AR field. With so many active threads, she'd have to wait until she'd finished her scheming. In any case, she'd now have until 7:55pm to make the trolley down to South Campus, which took about seven minutes.

Earlier that afternoon, she'd executed the proper requests to be queued for both locations' A/V feeds, simultaneously at the South campus convention space, the Ahmanson and the Water Park amphitheater. She was sure that there would be other students trying to do the same things, so she'd done this first to ensure her place. The D-Trolley hack actually hadn't taken as long as she thought it might, so by the time 4pm rolled around, she was hurrying, right on time, to her last studio of the day.

6:25pm - Hillside Campus, 'Research Studio'

She was in luck that afternoon. Her 5th term Research Studio was being conducted via 'holo-fred' - a virtual proxy, running on a profile of the actual instructor. The 'fred could be loaded with the appropriate context in which to conduct the studio with material from the course syllabus. In this case, their instructor was in Hong Kong that week and the 'fred had been programmed to field project queries, to the extent that it was able. Holo fred manifestations were a sub-construct of the VALC that were generally only visible from within the AR field, though there were a few actual holographic installations around campus (aside from the main presentation spaces) that served mostly as gallery or informational agents for visitors not able to access the VALC's continuum. Many instructors preferred even the limited personification aspect of the 'freds to the vagaries of the campus messaging services.

McKissic's lecture was due to start in less than twenty minutes now and she wanted a good spot near the stage at Water Park amphitheater. She hailed the 'fred and zoomed it closer to her. She explained the time overlap (for the
benefit of the 'real' instructor) and it dutifully recorded this, offering no debate but presenting her with a list of suggested project milestones, which she deposited in her peripheral. It was now 6:55pm, later than she had anticipated and she was on the other end of campus from the Water Park. Reaching out through the continuum, she found that her friend Darius was already there and would he save her a spot? Done. Approaching the Williamson Gallery, she noticed the holo-agent there was imaging the beginning of the lecture, its miniature diorama flipping in and out of her vision as she sped past. She hadn't had time to switch off the AR field before leaving the classroom but she had soft-docked it in her periphery; it was a mildly disorienting sensation to have the periphery active when one was in-between studios because it made the embedded virtual strata visible within the architectural contours of the schools physical plant. Looking straight ahead helped but she could still see the VALC's data artefacts trailing behind other students passing her in the hallway like so much anomalous confetti.

7:05pm - Hillside Campus, Water Park Amphitheater

Darius smiled at her as she sat down. McKissic had begun his talk with a series of mime-like movements, each representing an emotional response. Her periphery spawned an unobtrusive tendril, indicating that she was missing the enhanced portion of the lecture. A series of blinks un-docked the AR field and there in front of her was the venerable McKissic, cavorting around the amphitheater's dais with a small host of 'freds, each acting out some sequence of the theater training sim - love, anger, surprise, confusion, and so on. At a hundred and four, McKissic didn't look a day over fifty, with his crafty smile and the grace with which he was delivering his performance. He froze the sim and next had several audience members come out and orient themselves to a pattern of colored shapes that had been illuminated on the surface of the stage. He explained that he was working backwards through his development of the current sim system, using the virtual and physical modalities of the system at various
points in its evolution as illustration. Quela glanced around and noticed that a small number of the audience were directing their attention to mid-sized projection screens above the stage in order to see the enhanced performance while most were rapt to the stage directly, blinking here and there to adjust some aspect of their view.

As McKissic began the speaking portion of his presentation, Quela called up a replay of the last twenty seconds of his performance and 'set' it on the stage, thinking she had missed a little bit while she had been looking at the audience. McKissic was using a three-dimensional slide sequence to illustrate each of his concepts. Each 'slide' was actually an assembly of virtual stage props and animated diagrams, situated at the center of the dais to show interrelation and progression. Quela remarked to Darius, under her breath, that she couldn't see how you could watch a presentation like this on a 'vid screen; such a harmony of concept, environment and execution demanded the AR field's affordances. That the VALC was capable of managing the immediacy of such a presentation was truly impressive, as was McKissic's skill in composing for its environs. She was glad that this had been the first presentation of the evening so that she could take in fully the expert juxtaposition of each media's modality. With the novel exception of the Nano Emporium, she doubted that watching next two presentations simultaneously would yield the same profundity of connection. Or maybe it would, who knew, she'd find out in a few minutes - a timer had blossomed in her periphery, letting her know that her little maintenance hi-jinx was underway. She set her position in the A/V queue to record the rest of the McKissic lecture before giving Darius a quick hug in parting. She could come back to the amphitheater at her leisure and replay the remainder directly on the stage. Exiting the Water Park, she made a dash for the D-Trolley pier at the old student Pavilion.

7:55pm - D-Trolley transit loop
Quela had rolled her eyes at the passengers complaining about the maintenance delay when she arrived at the transit pier. Oh get over it, she thought, you'll get there same as everyone else and in time for the show. The thought that she might lose her Laurel scholarship only gave her brief pause - besides, it was good hack and one could never be too careful entrusting personal safety to a blimp. She had bucked the system for the benefit of everyone even if it was mostly for her own. The trans-pod bounced softly as it passed through each of the dirigible mounts suspended above the San Gabriel Valley on it's way down to south campus, the gossamer lattice of the cable suspension and the lights of the valley hypnotizing her briefly. As they neared the depot, Quela again brought the AR field into view, this time to set the viewing angels for her place in the Ahmanson auditorium's A/V queue - one close and one far - and Dr. Panchal's camouflage demo. She was sorry she'd miss that one in person but, unlike the McKissic lecture, it didn't require as many media flows. The pod drifted to a stop at the terminal depot and she made her way to the central convention space.

8:00pm - South Campus convention space

Denkel Sturge, a remarkably diminutive man, was all show. He was standing on a low stage erected near the center of the space, the audience either milling about or seated on stools surrounding him. The quiet susurrus of the crowd held an air of strange anticipation and Quela felt that she had missed something, just before she had walked in... there! She had to blink-roll her eyes to adjust her front field's data sensitivity because of the sudden burst of visual anomaly - with the data-contrast down she could see it - a weird... seething had taken hold of the stage. It jumped and stretched to create a higher platform for the hidden impresario. All about the space, stools were springing up to accommodate more guests. Quela witnessed each instance of this as a flurry of data particulates, which must have been the 'bots talking to each other before coalescence occurred, if she remembered her readings correctly. It was fascinating to watch
each stool take shape among the bemused audience, physical and virtual flows achieving solidity in unison. Very impressive. And the show hadn't even started yet, really. Sturge, his voice a Barker's rasp that created an odd resonance in the vast convention space, began to introduce himself as everyone found a place to sit around the newly reformatted stage. Just then Quela received a memo from the VALC's A/V monitoring system that Dr. Panchal's demo had begun and was available for viewing in either holo or vid formats. From her periphery unfurled two tendrils, affording her either choice, flexing and contracting slightly to avoid blocking her frontal vision. She drew up a small vid window just so she could check out the actual camo-material when it was demo'ed. She could see that her friend Margaret, who was sitting not far from her, was also tuned into the remote demo; some of Margaret's visual data-anomaly made sense from Quela's viewpoint, having been granted project level visual access to her friend's AR field, and vice-versa. This sort of field sharing made it easier to collaborate on certain design projects because it created a more expansive, unified AR space and became even more useful when there were several people involved.

While Sturge had been talking, both the stools and the stage had begun to rise, plateau-ing at various heights until a full-diameter amphitheater had been formed, the audience members furthest out ascending to a height of some thirty feet above the floor. The stools spawned arms and backs to accommodate (and stabilize!) the startled audience members, including Quela, who hadn't been giving the show her full attention. The feeling of nano-coalescence, of the added stool-affordances, against her back and arms was a little bit like the reverse of a vinyl seat peeling away from your skin on a hot day, even through clothing. Sturge was explaining that he'd 'trained' the 'fog to mimic almost every man-made form there was, though he admitted that outside of pure architectural form he hadn't quite gotten the resolution he'd been hoping for. In other words, the bots' couldn't coalesce to form, say, a person or even a fully operational transportation vehicle. At this stage they were just mimics, albeit very good mimics. They could essentially create cinematic renditions of the behavior of
some objects in the physical world, but not actually become them. Working parts within parts was still a problem but he figured that they'd be at that resolution in another ten years or so - the little fellows 'learned' fast, or rather they 'remembered' every configuration they'd ever been programmed for. Beyond that it was a matter of algorithmic extrapolation and for that, he said, the 'bots still relied on good old human ingenuity. The stage 'fog had been running a series of demonstration 'flows' while he spoke, each illustrating other ways in which the bots could be fluidly configured. Their range was amazing, skewing hard-geometrical but hinting that the ability to mimic forms of a more 'organic' mettle was not far off. Quela sat, mesmerized by the nanobots, waiting for Dr. Panchal's camouflage to be unveiled.

8:40pm - South Campus, 'datanomolies'

Sometime at around half-past the hour, a very strange thing occurred. Dr. Panchal had finally gotten around to the camouflage demo (she'd been talking an awful lot about her country's humanitarian issues and had veered slightly off-topic) and Quela turned up the rez in her front field so she could get a better look. Instead of the slight figure/ground adjustment she'd hoped for, however, she was surprised to see that Mehta Panchal was now sharing the 'bot ridden convention stage with Denkel Sturge! She quickly checked to see if she had somehow made an incorrect selection...no, wait, the 'vid window was still there...so, then how...? Quela blinked hard twice and hard-docked the AR field entirely but the holo Mehta remained. She noticed that several other audience members had also shut down their fields, thinking that perhaps they had caused the mis-projection. But no, the holo on the stage was very clearly coming from the convention space's own generators and not their personal fields. Quela switched her field back on to try and see what the trouble was. While she was running her query, she saw that the stage 'fog had begun to swarm the holo, like it was some sort of intruder. Sturge looked on, an expression of deep curiosity spreading over his face. Apparently, the 'fog maintaining their seating arrangement and the 'fog
responsible for the stage show had separate control parameters because, so far, they all remained firmly suspended despite the havoc being perpetrated on stage.

Ah, interesting, Quela noted, as Margaret joined her in the investigation. It seemed that the VALC had recognized that several of the audience members in attendance at south campus also had open A/V conduits to the Panchal demo AND happened to be members of overlapping studio project groups. It must have overridden their individual queue settings and 'decided' that the presence of a significant number of team members behaving in this manner indicated that they would benefit from this particular display mode. Quela doubted that it was an actual 'assumption' on the VALC's end - the VALC didn't make assumptions, only calculations; a statistical call, nothing more. She glanced at Sturge again, his face rapt. Hmm. Still, the miscalculation had generated a strikingly poignant hybrid. The swarming nanobots had been busy 'scanning' the photonic coordinates of the holo field and were now attempting to assemble themselves into a likeness of this new form. The emergent image was akin to that of an old newspaper photo, though the same progressive seething that Quela had noticed before seemed to ripple through the 'fog, tightening its resolution with each pass. Within a few minutes, the 'fog had almost completely reconstructed the incoming holo feed, photon for photon. Dr. Panchal seemed to be physically present and presenting with the exception that she appeared to be slightly...out of focus. Of course, anyone viewing the spectacle through the affordances of their AR field (which was most everyone there) would notice that the construct on stage had a datanomalous aura unlike any real person or object one usually encountered. The 'fog had gone into overdrive trying to track the holo's dynamic coordinates and their combined data-aura had become immeasurably complex.

Sturge admitted to the audience that he couldn't have hoped for a more delightful 'glitch' in the system, having never witnessed this behavior in the 'fog to date. The holo coordinates had apparently acted like 'training-wheels', which the 'bots had used to 'learn' the available image contours. Dr. Panchal, reaching the
apex of her demo, wrapped herself in the camouflage material with a full
pirouette and was gone, the A/V sensors in the Ahmanson auditorium no longer
able to sense her presence as a reflective surface. The holo projection at south
campus cut out simultaneously with this loss of signal and the ’fog collapsed into
a quickly dissipating fuzz. Sturge decided that his ’bots had had enough
excitement for one evening and brought everyone back down to the floor, both
stage and seating ’fogs retreating into a long, cylindrical baton in Sturge’s left
hand. Before she left, she regarded the little man one last time. Denkel Sturge
was certainly capable of hacking the VALC; even, perhaps from the outside. It
took one to know one, she thought. In any event, she’d been floored by the
results. Just before the data-holo-nano hybrid Mehta Panchal had disappeared,
Quela had marveled that such a complex mess could balance out to be the very
measure of simplicity and grace: an elderly Indian woman wrapping herself in a
magic shawl. It was positively uncanny.

9:15pm - D-Trolley, epilogue

On her way back to Hillside campus, Quela and Margaret chided one
another for being impressed by a scoundrel like Denkel Sturge. Well, at least she
had gotten to experience all three lectures. Seeing Dr. Panchal’s demonstration
transposed through the nano-fog, though, that really took the prize. Whether it
had been Sturge or the VALC (and neither would ever tell) the un-modulated
collision of media types had infused the proceedings with a surreal liveness that
felt somehow...more fulfilling. More fulfilling, perhaps, than if she’d seen the last
two sequentially instead of simultaneously. But then she was used to
simultaneity, wasn’t she? Quela suspected that she would have been supremely
bored with anything less - the VALC pretty much insured that they were all able
to experience every aspect of campus life from wherever they were on campus,
all the time. There was nothing that was not available, live, in their environment,
24/7. Looking out the window again, she could see the shells of various private-
housing data-cascades in the valley below, opaque to her from her perspective
within the VALC's continuum. Beautiful, beautiful, she mused to herself, the hybrid-aureate majesty of the evening's spectacle in her mind's eye co-mingling with the view below as she surrendered to exhaustion. Margaret reminded her that they still had to prepare their joint project work for 'crits the next morning. All that work, Quela groaned - tomorrow was only hours away but it still seemed a long way off.