NEO-MODERNIST VISUAL DESIGN OF AVATARS IN
SECOND LIFE

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THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

In the School of Interactive Arts and Technology

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SIMON FRASER UNIVERSITY

Fall 2010

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ABSTRACT -

This qualitative research considers the suitability of importing a Modernist aesthetic framework onto an avatar’s visual design in Second Life. This thesis explores whether the “archaic” Modernist concept of “medium specificity” can still be creatively expressed within the Post-Modern context of digitally plastic “multi-media” environments. This research focuses on avatar artefacts as a means to better understand Second Life’s distinct design properties.

The researcher assumed the participant-observer role of a “Modern Art-Critic” in order to personify the Modernist discourse through avatar interaction. Specific activities included a case-study (which included a workshop and subsequent focus group), expert interviews and the textual analysis of avatar designs. Based on these activities, the thesis articulates seven higher level findings. These findings illustrate Modernist issues involving abstraction and representation. The results also indicate that the participants attributed more “narrative” associations towards their “abstract” avatars than initially hypothesized.

Keywords: Virtual Worlds; Second Life; Modernism; Modern Art; Clement Greenberg; Medium Specificity; Participant Observation; Avatar Design; Focus Group; Workshop; Art Criticism; narrative; user; user-generated.
ACKNOWLEDGEMENTS

I wish to thank my family, friends and supervisory committee for their continued support behind my thesis endeavours. The Methodology Chapter (6) originally was published as a book chapter co-authored with Janet McCracken and Jim Bizzocchi. Jim, my Senior Supervisor deserves praise for his patience dealing with my abstract ideas and processes. I also wish to thank all of the participants (3Star Tyne, Indigo Mougin, Ember Coakes, MinDBlinD Setsuko, Juliette Chambers) and avatar designers (Flea Bussy and Colemarie Soleil) who took the time to contribute to my case study. Also, I would like to thank the Odyssey Island Community in Second Life for hosting my case study. Helfe Ihnen is also credited for building my research skybox. I am grateful to Alan Sondheim, Tobey Crockett, Selavy Oh and Mosmax Hax for their generosity in providing photo-documentation of their avatar-related artwork. Finally, many thanks go to the experts for their in-depth interviews: Klara Geher, Mark Meadows, Domenico Quaranta, Alan Sondheim and Jeffrey Ventrella. Specifically, I wish to thank Jeffrey for giving me constant feedback on my thesis ideas.
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## GLOSSARY

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<th>Term</th>
<th>Definition</th>
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<tr>
<td>Agent</td>
<td>In this context, an automated avatar aka. a virtual software “bot”.</td>
</tr>
<tr>
<td>Avatar</td>
<td>A representation of a user in a computer mediated space.</td>
</tr>
<tr>
<td>Flexiprim</td>
<td>Designed by Jeffrey Ventrella, Flexiprims respond to in-world physics (see “Prim”).</td>
</tr>
<tr>
<td>GUI</td>
<td>Graphical User Interface</td>
</tr>
<tr>
<td>LAG</td>
<td>The delayed phenomena that occurs due to slow bandwidth.</td>
</tr>
<tr>
<td>LSL</td>
<td>Linden Scripting Language – A proprietary programming language in Second Life.</td>
</tr>
<tr>
<td>MMORLG</td>
<td>Massively Multiplayer Online Real Life Game</td>
</tr>
<tr>
<td>MMORPG</td>
<td>Massive Multiplayer Online Role Playing Game</td>
</tr>
<tr>
<td>MOO</td>
<td>Multi Object Oriented – A User-generated text-based virtual world.</td>
</tr>
<tr>
<td>MU*</td>
<td>Same as MOO but allows for more refined user-customization of room, object and avatar modules.</td>
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</tbody>
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MUD  Multi-User Dungeon/Domain – Text-based virtual world that allows for multiple users.

NPC  Non-Player Character (See “Agent”). Automated “Character” in video games.

NVC  Non-verbal Communication aka. “Avatar Body Language”.


Rez  To make something appear into a particular virtual world.

RL  Real Life (used by residents of Second Life)

SL  Second Life

Superprim  A superprim (see “Prim”) that occupies an entire region or island in Second Life.

VR  (Immersive) Virtual Reality.
INTRODUCTION -

This research considers the feasibility and cultural impact of importing a Modernist aesthetic framework (Lessing 1776, & Greenberg 1940) – and its extracted “medium specific” parameters (Chapter 5) - onto an avatar’s visual design in the chat-based virtual world, Second Life. This thesis explores a fundamental paradox where the concept of “medium specificity” does not initially appear applicable to the reconfigurable context of “inter-media” environments represented by such “mediums” as virtual worlds. Further, this Post-Modernist paradox reinforces the fact that Second Life in particular, is a user-generated and non-ludic world that does not initially possess any formal guides for avatar construction.

This research intends to clarify how medium specificity as a desired design framework could be analyzed within a context where the very idea of medium specificity itself is put into question. The fact that the user creates an entirely emergent environment and persona “from scratch” using a variety of media inputs (i.e. sound, photos, video, words, actions, gestures etc) makes Second Life as a “medium” categorically distinguishable from the pre-determined affordances of video games.

It is for this reason that this research begins by carefully explaining Second Life’s unique historical place (Chapter 1) alongside similar non-ludic virtual worlds such as Traveler and Active Worlds (Chapter 2). Essentially, the researcher’s own prolonged engagement with Second Life’s artistic community on “Odyssey Island” makes this particular world the ideal field for art-historical (i.e. Modernist) avatar processes and outcomes (i.e. “artefact specificity”).

The theoretical context informing these Modernist processes and outcomes represent a centuries long art-historical discourse embodied by philosophers such as Lessing and Kant and by the controversial Modern Art critic, Clement Greenberg. These
individuals personify the applications of idealized Modernist principles that have become the focus of discussions relating to the “seriousness” of visual media including virtual worlds themselves (Chapter 3). As with previous research (Dena et al, 2006) that delved into Second Life formal properties, this thesis specifically explores what an “authentic” avatar-artwork in a user-generated virtual world might look like and whether or not the tools and Graphical-User-Interface (GUI) itself influences narrative representations of avatar appearance.

This research initially hypothesized that a minority of “avant garde” avatar designers would be more interested in “pure visual relationships” than in explicit narrative-driven characterization during the construction process. Instead, the evidence presented in this thesis indicated a concern for narrative functionality through archetypal representation. Consequently, this research has seriously reconsidered “narrative” as a persistent aesthetic property of Second Life’s “medium”. Regardless of this significant concession, this research confirmed that avatar creators have the requisite art-historical knowledge and technical capacity inherent in Second Life’s specific avatar-creation interface (i.e. “in-world” tools) to realize Modernist designs. In fact, some of the more intellectually rigorous of these designs would satisfy Greenberg’s rigid criteria for a “Medium Specific” artwork (Chapter 4). In addition, the hypothesis states many of these Modernist parameters such as the abstracted levels of: medium visibility, visual autonomy, visual recognisability, practicality, virtuosic “craftsmanship” and visual diversity (i.e. maximalist vs. Minimalist) would be inherently present when designers created avatars with more conventional (i.e. non-artistic) purposes in mind (Chapter 5).

Testing this hypothesis, the researcher employed participant observation as a qualitative methodology by assuming the avatar role of a “Modern Art Critic”. Through the varying levels of direct agency enacted by the researcher towards several participants in a visually neutral “skybox” environment, this case-study’s methodology has been contrasted with both the researcher’s own previous research roles with similar projects and alternate roles assumed by other virtual world researchers (Chapter 6). For
this workshop and focus group session in particular, the researcher assumed the “Modern Art Critic” role in order to determine the degree to which these parameters would reveal themselves in a ubiquitous way during the real-time avatar creation processes, peer-critiques and resulting artefacts (Chapter 7).

Through the collected evidence compiled through multiple data-gathering techniques such as: hosting a two-part case-study, interviewing experts in the domain and a textual analysis of pre-designed avatars (presented by participants in the focus group); the researcher has been able to articulate seven higher level research findings (Chapter 8). In all of these findings, the researcher was able to illustrate the apparent Modernist gradations between abstraction and representation as well as non-narrative and narrative designs (Chapter 9).

This research concludes that most of the findings - such as the default presence of an anthropomorphic avatar body core and prevalent instances of visual simplicity in the analyzed avatars’ appearances – reveal the idiosyncratic affordances of Second Life’s Graphical User Interface, its associated avatar creation tools and the cultural expectations of the designers’ peers from their artistic community. However, the findings also indicated that the most abstract avatars designs conformed to the participants’ personal sense of narrative functionality through characterization, personification and theatricality. With these factors in mind, the researcher proposes that future user-generated virtual world designers become more familiar with this evolving art-historical discourse and its potential applications for re-iterating future versions of worlds that are categorically similar to Second Life.

In addition, readers could indicate avatar design types that are most suitable to specific virtual worlds and those that are “universal” and therefore, easily transferable into next-generation virtual worlds. Moreover, the significance of this research points to current developments in the history of virtual worlds where new features have been bundled into subsequent GUI iterations as a direct result of listening to the creative input from their indigenous avatar community (Chapter 10).
In the future, one expects that next-generation world developers will learn from the various intellectual and aesthetic accomplishments contributed by avatar artists and designers over the years. Therefore, this research endeavours to re-introduce the Modernist discourse back into academic and industry-related considerations of user-experience. If this research is treated as a serious resource for academia and industry, then these Modernist parameters could one day be visually expressed in newer iterations of avatar design tools (i.e. an avatar appearance editor). In this sense then, the Modernist discourse within Second Life’s own highly educated artistic community is partially responsible for elevating an otherwise “aimless” non-ludic world to that of a “serious” artistic “medium”. Therefore, Second Life as a creative “medium” transcends the goal-oriented motivation of video games while maintaining a sense of “ludic ambition”. Unlike video games, avatar users learn to become involved with “qualitative outcomes” rather than “quantifiable outcomes” (Zimmerman 2004:160).
CHAPTER 1: BRIEF DISCUSSION OF “VIRTUAL WORLDS” IN GENERAL -

In order to limit the scope of this discussion to the thesis topic, discussion will be limited to computer mediated virtual worlds. Having said this, there is an acknowledgement that virtual worlds as an artistic “medium” date at least back to the time of Pliny.¹ In fact, historically significant expressions of “virtual art” have been regularly found in the illusionistic paintings of the Renaissance period (Grau 2003).

To understand the poetics of virtual worlds as an instantiation of a “medium”, this paper begins with four clarifications. The first clarification deals with the conventional definition of present-day virtual worlds. The second clarification distinguishes between text-based and graphical virtual worlds. The third clarification distinguishes between ludic (i.e. video games) and non-ludic virtual worlds (i.e. Second Life). The fourth clarification focuses on Second Life in particular as both an “application” and a “medium”.

1.1 Chat-Based “Virtual Worlds”

People increasingly turn towards Virtual Worlds as viable applications for: social networking, education, business, research, telecommuting, commerce and gaming. However, there is currently no academic consensus for defining the precise nature and properties of these virtual worlds (Bartle 2004:2). The reason for this scholarly confusion has partly to do with the diversity of content and “narrative” ambience in each particular world. For example, instances of intentional content remediation (Bolter & Grusin 1999) from the real world are quite varied. Chiefly, this is because many of
these worlds contain discrete zones for “real world” and “fantasy” experiences. In fact, some zones within Second Life are reserved for themed fantasy role-playing activities (i.e. Dune, Star Wars etc) whereas other zones are for broadcasts of “real life” (RL) lectures. Further, the local region of each virtual world may have its own customized structural restrictions.

Restrictions such as the physics, (i.e. gravity, collision and locomotion), communication protocols (i.e. text chat, non-verbal graphical communication and/or VoIP), and avatar design tools help shape a networked communities’ preferred “narrative experience”. Each avatar user usually employs their own combination of external software applications and additional worlds in order to enhance their overall subjective “narrative”. This usage of multiple software applications partially explains why virtual worlds are a “plural domain”. So, what is the most agreed-upon definition of a “virtual world”?

In popular culture, authors stereotypically depict virtual worlds as utopian or dystopian computer-mediated universes – similar to dreams - where anything imagined is virtually “possible”. According to current technical definitions and usage, “virtual worlds” - at the very least - are computer-mediated spaces that are “implemented by a computer (or network of computers) that simulates an environment” (Bartle 2004:1). What is significant about this structurally minimalistic definition is that such a world does not even need to be networked between users. In other words, networking with other computers in some worlds is an optional activity and not necessarily a structural imperative. Thus, not every type of virtual world requires more than one solitary avatar to exist. A virtual world could even exist completely avatar-less and/or be entirely populated by automated virtual entities known as “agents” or “NPCs” [See Glossary].

In fact, Bartle makes it clear that networked spaces have their own distinct classification of “shared” or “multi-user” virtual worlds (Ibid). Likewise, it is only in these shared “social virtual worlds” where “the primary activity is communication between users on topics of their own choosing (which may include building and gameplay as
secondary activities)\textsuperscript{6} (Damer 2006). Because of the current proliferation of multi-user environments, our popular culture tends to confuse this structural definition of virtual worlds with being a “genre of online community”\textsuperscript{7}. However, the desire for a virtual community seems to be more of a cultural preference than a property that is integral to the identity of virtual worlds as a creative “medium”. Furthermore, Damer stresses that gameplay is merely a “secondary” activity. Virtual worlds then, are qualitatively distinct from its immediate ancestor, the adventure-based video game (Bartle 2004:2, see Chapter 1.2).

One structural characteristic that is common to both solitary and shared virtual worlds – independent of any community presence - is “persistence”. For example, since “Second Life is a persistent medium” that goes “further than operating within a static technological or art-historical context [...]”, “… other [art]works are always functioning” (Rackham & Mccrea in Doesinger 2008:150. Underlining by the Thesis Author). Moreover, it is through this art-historical and technological persistence that “the environment continues to exist and develop internally (at least to some degree) even when there are no people interacting with it” (Bartle 2004:1). Consequently, even a “solitary” world is not entirely dependent on this single avatar for its existence. Therefore, virtual worlds – at its core – are not inherently social but are persistent artificial environments.

It is for this reason that this research initially hypothesized that an avatar designer would not always design with others in mind (see Chapter 4.1). Fundamentally, the initial hypothesis claimed that the designer’s essential “materials” would only involve the most abstract properties\textsuperscript{8} such as light, sound and time (motion). With Second Life in particular, there have been examples of avatar artists exploring the optical and exploratory properties of virtual space, for its own sake (See Chapter 4.2.1). Since “participants have a limited time in the virtual world, as in the real world,” they often multitask between “collecting resources, practicing trade skills,” or engage “in less productive fun play.”\textsuperscript{9}
The interactive pleasures\(^{10}\) (Murray, 1997) derived from engaging in “less productive fun play” are limited by the hardware affordances of the presentation screen and a domestic home-computer ensemble. Unlike fully immersive “Virtual Reality” (VR) spaces, virtual worlds are usually domestic (i.e. desktop or laptop) environments operated from the client-side of the interface. Using a mic, mouse and keyboard\(^{11}\), the user navigates his/her avatar through an otherwise flat (two-dimensional) rendering of a virtually Cartesian “3-dimensional” space. Since the rendering of such space is primarily from the client’s side of the interaction, the user often has to endure a graphic-texturing delay. This bandwidth delay known as “lag”\(^{12}\) affects the user’s aesthetic experience of immersion, agency and transformation (Ibid.) in a time-sensitive manner. As a result, time is most certainly an essential property of the medium since this dimension ties in directly with the gradual manifestation of objects and avatars\(^{13}\). In general, the sense of immersion is also further delimited by the user’s monitor size, CPU processing power and video-card graphics settings.

Virtual world platforms such as Second Life are sometimes classified as a Massively Multiplayer Online Real-Life Game” or MMORLG\(^{14}\). Unlike many MMORPGs (Massively Multiplayer Online Role Playing Games), the user in a MMORLG can “edit and alter their avatar at will, allowing them to play a more dynamic role, or multiple roles”.\(^{15}\) Users can define their avatars’ visual characteristics through text descriptions and/or explicit graphical representation.

1.2 Avatar Design in Text and Graphical “Virtual Worlds”

“At its core an avatar is a simple thing. It has a name, a picture, and a social environment. It is an interactive, social representation of a user”


There was a time within the past few decades where Meadows’ meagre description of a basic functional avatar would not have even existed in a computer-mediated space. This was because computers did not have the requisite computing and
bandwidth power to render detailed graphical avatars. Meadows himself has even
downplayed the cultural necessity of having a visually represented avatar. According to
Meadows, his first avatar was only a text “string of six letters” (Ibid:9) This is in sharp
contrast to the graphical affordances of Second Life where people found out that their
“avatars were not simple strings of text but three-dimensional characters who could
move, change clothes, exchange gifts and dance” (Ibid:12). Generally, there is no
historical consensus as to what the most “basic” avatar really is. Does it need to have a
picture? Does it need to navigate in Cartesian space? Does an avatar need to be
networked for interaction between users?

In order to understand avatar (artefact) specificity in the context of Modernism
then, the history of avatar design needs to be addressed. This history contextualizes an
increasing media richness (Ermi & Mäyrä 2005:6) and robustness of interactive choice in
virtual environments. Further, this history indicates a sudden shift in cognitive labour
from the reader (user) to the avatar creator. With text-based environments, the reader
works harder to visualize an avatar’s design using little more than their imagination.
With graphical-based environments such as Second Life, however, the creator is under
more pressure to design an avatar that acts as a reasonable (and more convenient)
substitute for the imagination (based on Ermi & Mäyrä 2005:8). In both instances, a
“willing suspension of disbelief” (Coleridge 1817) is required by both the avatar reader
(user) and the creator to view any of these virtual worlds as a parallel reality with the
“real world”. However, there are many cases to suggest that media-richness usually
makes this suspension less laborious.16 With the earliest computer-mediated avatar
incarnation, for example, the user had to concentrate on suspending his/her disbelief
just to imagine the virtual existence of a persistent social world.

1.2.1 The Cursor as Avatar

At its most elemental level, Michael Heim has brought the primal agency of the
“networked flickering cursor” to our attention as the media-impoverished “seed of the
avatar” (Heim 2001). It is from the cursor after all, where electronic text originated and
where conceptual (i.e. narrative) descriptions of an avatar’s appearance first emerged. Heim attributes social agency to this cursory avatar since he views the “networked” aspects of its design as being a part of the seminal traits of “avatar-ness”. Heim also sees the structural underpinnings of “networked space” – even at is most minimal and liminal – to be a genuine “graphical place where avatars, move and interact with each other” (Ibid). In the case of the cursor or text-mediated worlds, an avatar’s “existence” is not entirely predicated on being explicitly graphical in nature as long as it has “the anticipation of potentially interacting with other avatars” (Ibid). By “anticipation”, Heim seems to infer that the user must first envision the possibility of networked interaction with other users. Otherwise, the user will not perceive the text-based application as an immersive “world”. Moreover, Heim views imaginative (Ermi & Mäyrä 2005:8) and sensory environments (Ibid:6) as “depth dimension[s] of cybernetic space” that “opens with the advent of the avatar” (Heim 2001). Even at this germinal stage, Heim views expectations for connectivity as the “opening” point for an anticipation of increasing layers of media-richness.

If this is the case, then there are various “dimensions” of mediated interactivity within cyberspace where an elemental avatar can have functional agency. More importantly, these dimensions include the acknowledgement of a purely imaginative realm (Ermi & Mäyrä 2005:8). At this level, it is the user’s sole responsibility to enable cognitive interactivity (Zimmerman 2008) and “personify” their avatar’s design through the manual creation of text-based narratives. The reliance on narrative descriptions through “characteristics” is essential at this level. In fact, text-articulated visualization is still useful in media-rich environments. This is because prose stimulates the user’s imagination towards providing the remaining “dimensions” to an avatar’s “visual” attributes. Using his own imagination, Heim speculates on this cursor’s ontological evolution from imaginative to sensory immersive experiences. Likewise, Heim suspends his own disbelief by envisioning a transmogrification of the avatar seed from a flashing monochrome pixel-block into a graphically detailed entity. Therefore, with increasingly media-rich environments, the graphical avatar “attains moments of self-realization as
the user chooses shape, clothing, and modulated voices with which to enhance the moving avatar” (Heim 2001). Historically speaking, this self-realization of his sample avatar did not occur in a single iterative cycle but rather over a period of decades starting with the first text-based virtual worlds.

1.2.2 Text-Based Avatars

Originally, all of the “first virtual worlds were text-based, in that their environments and the events occurring within them were described using words rather than images” (Bartle 2004:1). For instance, “Multi-User Dungeons/Domains” (“MUDs”) began as text-driven interfaces with a monochromatic command-line interface (i.e. DOS). Appearing much later, non-ludic text-worlds eventually became known as a “MU*” (Ibid:2).

Originating with text-adventure games, the narrative activity of “role-play” served as a unified avatar design imperative for about two decades. This imperative influenced the structural formation of recent avatar appearance editor interfaces – textual and graphical alike. It was not until 1990 where the first truly user-generated text modules for an avatar’s self-description finally appeared onto user-friendly popular platforms known as “TinyMUD” and “MOO” (“Multi-Object Oriented”). With the latter, users could not only describe their avatar’s appearance and attributes in a manner beyond pre-selecting text-descriptions of generic archetypes, they could also add scripted modules that contributed to the way the entire networked world appeared to others. It was the accepted case that avatars defined themselves solely through “a good word-per-minute typing speed and a lively wit” (McCaw 2006:9). In the past, one’s conversational style helped determine the avatar’s “visual” appearance. Therefore, the craft of designing an avatar - up until very recently - relied almost entirely on one’s ability to write detailed personality descriptions. Second Life is an outlier this way because the text-chat protocol is still the mostly widely used feature amongst this world’s graphical avatars. Because of Second Life’s text-centric origins, avatar design focused more on the overall bodily language than directly on the facial-features. With this emphasis on text-based communication in Second Life, “…your avatar doesn’t
immediately reflect your body language, and you get a few more seconds to reply when your emotions ‘take over’.\textsuperscript{20} Since “Second Life combines the graphical richness of MMORPGs with the customization of MUDs”; the avatars that people prefer to design might be inadvertently “enabling or encouraging a fracturing of self or transcendent, disembodied fantasies” (Jones 2006:26). To understand Second Life’s full multimedia impact on avatar characterization(s), one must briefly discuss the influence of other graphical virtual worlds.

1.2.3 Graphical Virtual Worlds – Background and Influence on Avatar

Design in Second Life

“Unlike MOOs or MUDs [...], the designers can engage users in 3-D visual information with direct chat, multi-perspective objects, virtual architecture, animated avatar behaviors, automated ‘bot’ avatars, web cams and extensive hyperlinks to texts and photos. Unlike the pseudo 3-D of Flash or QuickTime animation, avatars can walk around and interact with objects or animations. Unlike rule-based games like [...] Doom, authors can enjoy a freedom of conception that expands the interactive gaming tunnel into a broader spiral of self-reflective imagination”


As for the graphical origin of virtual worlds, Bartle and Damer have both gone at length to discuss this history. Whereas Bartle has covered the evolution of graphical worlds from the days of PLATO to the popular MMORPGs, Everquest and Asheron’s Call (Bartle 2004); Damer has published online an official Virtual Worlds history timeline\textsuperscript{21}. Although there are too many worlds to discuss within the scope of this thesis, it is best to summarize the history of graphical virtual worlds according to their approach towards avatar-customization and media-richness. In terms of historical highlights, there are some pivotal examples from “dnd” (1975), “Habitat” (1987), and “Active Worlds” (1995).\textsuperscript{22}

1.2.3.1 Pivotal Examples

Gary Whisenhunt’s and Ray Wood’s “dnd” was one of the first graphical role-playing environments for the PLATO mainframe. Although Rusty Rutherford created the
first such “graphical dungeon” on the PLATO mainframe in 1974, “dnd” was the first to allow the user to “create” a character by selecting between a limited number of archetypes. Existing on an amber monochrome screen and using a two-dimensional “third-person” perspective, characters in “dnd” were generic archetypes. All highly anthropomorphic, these characters possessed a Byzantine flatness, featureless face and rigid gesture-less torso. These vector-based characters subverted the game’s top-down (aerial) perspective by displaying their full vertically-oriented torsos rather than the top of their heads. Further, these dimensionally-skewed characters “stood” at a disproportionate height compared to their dungeon environment.

Unlike Byzantine art, these characters’ symbolic and anti-naturalistic (i.e. mildly abstract) flatness was more due to hardware limitations than to a conscious aesthetic choice. It is also due to these structural constraints that the only real way to distinguish these characters from their enemies and walls was their relative line-density – as suggested by symbolically functional ornament (i.e. weapons, armour, shield etc). This density, however, is not meant to be confused with maximalism in any way. Although the line density would accumulate with items/accessories purchased from the “general store”, the character’s two-dimensional wire-frame was not significantly denser than anything else in the environment.

Invented by Chip Morningstar and Randall Farmer for Lucasfilm Games in 1985; Habitat (another third-person environment) provided the first multi-player virtual community for the Commodore 64. Treated as a chat-based “game”, Habitat also was the first environment to refer to a user’s self-representation in virtual space as “avatars” – rather than “characters” (Damer 1998 & Dickey 1999:16). Unlike the earlier mainframe-based RPGs, Habitat displayed sixteen colours, raster (sprite) graphics and a vertical “side-scrolling” orientation. Speech-balloons would appear above the avatar’s head in order to correlate the user-generated narrative content (text) with the graphical avatar. In Habitat, although “*users could interact with each other and customize the [...] 20,000 places within Habitat’s world*” (Ondrejka 2008:234); users were unable to customize their avatar’s appearance. This had to do with the designers’ intention to
limit the avatar design through deliberately constraining game mechanics. Since the
designers wanted the users begin playing without any competitive advantage, the
avatars’ appearances were only subtly differentiated by gender, clothing and hairstyle.

These equivalent avatars symbolically represented the narrative functionality as
idealized by the designers. Perhaps as representatives of an increasing egalitarian age,
the designers relied on visual simplicity to “remove from the calculus of social inequality
all effects derived from such bodily characteristics as height, weight, age, gender,
clothing, hair color (and amount!), beauty, and sexual attractiveness” (Castranova
2003:18). It is also partly for reasons of “equality” that the designers also consciously
chose to “move away from a fantasy motif” (Ondrejka 2008:234).

Active Worlds, of the three examples, is considered by many to be the direct
“ancestor” of both There and Second Life. Similar to Second Life, Active Worlds
contained user-generated zones that allowed the venue “host(ess)” to determine the
types of body-parts that would be available to the user for additional customization.
Active Worlds offered a range of body-types that encompassed the full range of
abstraction and (non)-anthropomorphism. Unlike the earlier examples, Active World’s
avatars were completely expressive and animated. Beyond the body’s outline, a user’s
text-chat appeared as floating clouds above an avatar’s head [Figure 2]. Like Habitat,
this hovering text tied the user’s narrative content with the avatar. Unlike Habitat,
however, the text in Active Worlds gradually drifts away from the avatar’s head.
Symbolically, this can represent the increasingly obsolete text-chat protocol in media
rich visual environments.

As a world composed out of discrete user-generated “themes” (see Chapter
2.1.1), avatar designs in Active Worlds embraced both “fantasy” and “reality”23. Active
Worlds was also one of the first representatives of a species of chat-based virtual
environments where the user could toggle the function of an avatar from a third-person
“visual representation of a user” to a first-person “camera” (Dickey 1999:58). The
reason for this ontological shift between subject and object was due to the increasing
media richness of these environments. As one of the earliest three-dimensional chat
environments, Active Worlds contained animated objects, large avatar populations and expansive terrain. As a result, avatars were primarily “explorer” archetypes (Bartle 2006) designed around “navigational functionality” and a highly accentuated figure for socialization purposes.

1.3 Brief Comparison Between Ludic and Non-Ludic Virtual Worlds...

“...the name ‘Second Life’ alone promotes exploration of a new life and frames this as the experience of the platform; stepping into a new life or into fantasy”

In order to understand the full cultural nuances that inform avatar design in Second Life, further clarification is needed to distinguish this type of world from video games. However, a dogmatic binary distinction between video games and virtual worlds is artificial and not entirely useful. In fact, some virtual worlds more closely resemble “video-games” than others. Although this thesis has measured Modernist avatar designs in terms of binary polarities (see Chapter 5); it is better to comprehend both the similarities and differences between video-games and “non-ludic” virtual worlds. Whereas video-games are similar to virtual worlds and even share some defining characteristics; each instantiation also possesses its own idiosyncrasies. Furthermore, the user him/herself – especially in user-generated worlds - provides their own interpretation on whether or not the world they are experiencing is a “game” or something else entirely.

In video games, representations of the user in game-space are usually known as “characters” rather than “avatars”. The reason for this linguistic designation has to do with the fact that in video games, the user acts as a subordinate part of a pre-designed narrative (i.e. a modular story-arc). Such narratives are usually designed by the game’s creator(s). However, there have been some remote occasions where the player-character (PC) was allowed to directly influence the game-world’s narrative history, as it unfolded over time. In Second Life, however, there is no fixed “narrative” from
which a user can participate within it as a “character”. Instead, the user has to develop his/her own emergent narrative and iterate his/her own avatar’s design accordingly – and often, in real-time. Unlike many video games, a user’s avatar design in Second Life is potentially much more variable, individualistic and responsive to changing cultural trends that occur entirely “in-world”.

In essence, “SL is also related to games” but is distinguishable from them because Second Life “removes the artificial constraints on creativity that games usually impose” (Bennetsen 2006). Games such as World of Warcraft, for example, “…cannot allow its players to create anything they could imagine because of the belief it would upset necessary balances and ruin the game” (Bennetsen 2006). According to Zimmerman’s interpretation of Bennetsen’s “checks and balances” comparison, Second Life would belong in this second category for “game-play” which he dubs “Ludic Activities or Informal Play” (Zimmerman 2004). Specifically, Zimmerman would likely say that Second Life’s structuring around emergent social outcomes is not strictly ludic because chat-based virtual worlds focus on “nongame behaviours […] that we also think of as ‘playing’” (Zimmerman 2004:159). As a qualifier for this distinction, at least one crucial ludic behavior that Second Life has in common with conventional MMORPGs is that both virtual environments “…embody a contest of powers.” (Zimmerman 2004:160).

A non-ludic “contest of powers” allows for the “possibility for misbehavior and cheating” since this “is one of the more poetic advantages of Second Life as a place for games, when compared to typical computer games where rules are immutably executed by the machine” (Harry, Offenhuber and Donath in Doesinger 2008:68). When dealing with Second Life’s emergent “narrative” as an open-ended phenomenon, it is best to frame the motivations behind designing an avatar as “ludic ambition”. Furthermore, the incentives for “player” advancement can be dubbed “qualifying outcomes”. Mark Wallace - the official spokesperson for Second Life - has claimed that this lack of articulated “quantifiable” ludic outcomes has actually contributed to the user’s persistence and enjoyment26. For example, many avatar designers and artists in Second
Life have decided to “level up” in Second Life by assuming the “celebrity” archetype as part of their creative role and preferred characterization. Contrary to conventional belief, this pursuit of self-celebritization is not simply for the glamour and prestige that initially comes with the designation. In addition, the act perpetually promoting the avatar’s persona in Second Life is to gain some sort of ludic coherence out of the whole chat-based virtual world experience. Therefore, the very act of promoting an avatar in Second Life makes it appear as if the activity in question resembled a “game”.27

The open-ended narrative trajectory of Second Life presents a new interpretation on Salen and Zimmerman’s definition of the kind of “game” that needs to reflect “quantifiable outcomes” (Salen & Zimmerman 2004). Although Salen and Zimmerman treat “outcomes” and “rules” as separate components in a game’s design; rules in video-games are created as a means to structure a user’s ludic goal towards achieving specific outcomes – most of which are quantified. For example, a default “character” in the World of Warcraft is outfitted with armour, starting weapons and distinct “archetypal” features. Far from being merely ornamental, these accessories and features have quantity values associated with them (i.e. leather armour is worn for X number of hit-points). Right from the character’s initial design then, rules are visually manifest as a symbolic means to constrain a user’s behaviour towards achieving quantifiable outcomes.

The only known “rules” in Second Life that constrain an avatar’s behaviour have more to do with self-imposed ethical norms and perceived social standing than those timidly enforced by Linden Lab’s Terms of Service (TOS) Agreement.28 Second Life manages to convince many (but not all) avatar citizens that they are in fact playing some sort of game with “end results” that depend more on “qualifying outcomes”.29 Avatar design in Second Life – in theory – is much more open-ended and less explicitly tied to narrative functionality.

Second Life is a large prestige-driven landscape. Consequently, one needs to ascend the social hierarchy of the “game” through the “quality” of your chosen personality rather than displaying any “quantifiable” units such as: points, kills30 and
items. In fact, the number of items an avatar possesses does not even matter in Second Life since this mass accumulation would simply clutter the expediency of his/her inventory folder. However, it is the quality of the (usually “hand crafted” and “customized”) items that allow the aspiring avatar “player” to narratively progress through the game in the hope of reaching the ultimate “end goal” - fame. In Second Life, you cannot quantify your success in any tangible and meaningful way – you must actively become eligible to qualify for it amongst the peers in your chosen “community clique”. Especially in Second Life’s art-world, one designs their own avatar self-representation to visually distinguish their own unique persona from that of other avatar “artists”. Thus, the visual appearance of an avatar in Second Life’s art-world will only help “qualify” the user as an “artist” if the characterized design portrays a stereotypically “eccentric” look that “stands out from the crowd”.

Second Life generally appears to function as the rare type of “video-game” that contains absolutely no centralized narrative content nor embedded navigational cues. Through the alternative delivery of (a usually non-violent mode of) “conflict” (i.e. gossip wars and beauty contests), and other quasi-ludic incentives (i.e. fame and prestige), Second Life has still managed to inadvertently encourage many sustained forms of “game-play”. As a result, Second Life’s virtual “game” has enabled “healthy competition”, “historical preservation” and even “addiction” amongst its “players”.

Using Second Life as an example, next-generation MMORPG games could learn to focus on “qualifying outcomes” as incentives for a character’s ludic advancement. By doing so, video game designers would open up new possibilities for evolving their narrative arc in real-time. Ultimately, user-generated virtual worlds such as Second Life have provided enough of a coherent “narrative” to enable the user with a genuinely “transformative experience” (Murray 1997). Therefore, Second Life is one of the few worlds that allow users the necessary agency to extend their avatar’s visual attributes directly into the virtual fabric of their surroundings.
1.4 Overview of Second Life

1.4.1 What is Second Life?

Launched in 2003, Second Life (SL) is a free client-based virtual world for socializing and other quasi-ludic activities. Second Life was developed for PC and Mac computer platforms by Philip Rosedale and Linden Research Inc (aka. “Linden Lab”). Although Second Life is known as a “desktop VR” application, this world functions equally well on laptops. The reason why Second Life is presently known as “desktop VR” was to differentiate it from the fully immersive virtual reality (VR) installations that were developed in earnest from the 1960s to roughly the mid 1990s (Krueger 1969; Lanier 1982 et al). Although the intended demographic for users in Second Life is for people aged 18 and over, Teen Second Life exists for people as young as 13.

FIGURE 1. Wirxli (Thesis-Author) demonstrating Second Life’s in-world object translation and texturing tools for raw customization possibilities.
Embedded into the Graphical-User-Interface (GUI) is a three-dimensional modelling tool that activates after a tiny “build” button shown at the bottom of the navigation screen is pressed. Once this feature activates, an aspiring avatar designer can then construct and sculpt simple virtual geometric shapes known as “prims” [Figure 1]. Furthermore, these “prims” are made in real-time and can be textured with uploaded photos, wavefiles and Quicktime video (streaming and uploaded). In addition to content texturing, these prims allow for behavioural customization (i.e. automated chat, gestures and animations) through the added functionality of an embedded proprietary code, the Linden Scripting Language (LSL). LSL is a programming protocol similar to Java or C#. LSL adds functionality to objects by having the scripts embedded directly into each customized prim. Like any programming language, there is a learning curve for non-programmers but Linden Lab has pointed out that “despite these hurdles, fully 15 percent of Second Life’s residents experiment with scripting every week” (Ondrejka 2008:239).

A rarely known fact shared amongst Second Life’s more experienced avatar designers is that many of the design processes are not exclusively developed “in-world”. In fact, most of the more visually “complex” three-dimensional content – including gestures, animations and clothing - can be iterated using external software such as Maya or 3D Studio Max. Unlike many video game companies and even some non-ludic virtual worlds, part of Second Life’s philosophy is to ensure that users “retain copyright for any content they create” while it is the responsibility of the “server and client” to “provide simple digital rights management functions.”

As of the year 2010, Second Life remains the most popular chat-based graphical virtual world (Fomenyk 2010) for user-generated content. As early as 2006, users had already spent a total of sixty-thousand hours creating content in Second Life (Ondrejka 2008:238). Second Life grew to this level of popularity and critical acclaim due to treating this networked world and its avatars as a kind of creative “tabula rasa” where users exclusively contributed to the content (architecture, objects, avatars) that made the world appear on screen in the first place. In other words, Second Life only provided
the interface and creation tools, and a few default avatars as a starting point for creation. It was entirely up to the user to construct the contents of this world. The developers of Second Life took an intentionally “hands off” approach to the ways in which said content would be designed and manifest into the world at large. After Second Life effectively implemented its core user-centric philosophy of, “Your World. Your Imagination” into their viral marketing scheme, its user base grew exponentially. Remarkably, Second Life grew to more than ten times the total number of avatar citizens that inhabited its immediate ancestor, Active Worlds. Within a span of less than four years, Second Life’s avatar population blossomed from tens of thousands of individual regular avatar users in its beta phase to approximately 1.5 million dedicated users in 2008. At the time of writing, throughout the 24-hour cycle, there are between 40,000–70,000 avatars simultaneously logged “in-world”.

What is interesting about this sudden population boom with respect to the theme of this paper is that a sub-culture of academically aware artists and art-critics from all countries - and both genders - also rose to prominence during Second Life’s peak marketing period that occurred between 2006 and 2007 (Quaranta 2007; Gerosa, 2007). It was also at around this time that Second Life finally eclipsed their closest competitor, “There.com” as the dominant chat-world platform.

The inevitable failure of There.com to dominate the virtual worlds market was due –even during their beta phase - to their inability and unwillingness to adapt to the emergence of a highly educated creative demographic. Even on a community level, There.com focused on “Yuppie” archetypes in order to match the pre-fabricated architecture that existed before the first avatar even arrived. Second Life, on the other hand, was interested in the creativity and emergent design sensibility of the user – and this appealed primarily to those who already had prior Fine Arts and Art-History training. In terms of “real world” demographics, most of the population base resides in Europe and almost half of Second Life’s residents are female.

By 2007, Second Life finally became the most widely used virtual chat-world. Astonishingly, even when the total population of actual unique regular users was only
about 300,000 (10,000-30,000 avatars in-world at any given time) it appeared as if a visibly significant number of the total population achieved a perceptible level of micro-recognition amongst bloggers, and in-world photographers. To this day, it is commonplace to see numerous bloggers from the Second Life community posting claims that they met someone “famous” in Second Life. Moreover, it is because of this glaring cross-platform visibility of “famous” Second Life avatars appearing throughout the broader culture of the internet (i.e. social networking sites such as Facebook, Twitter, SLProfiles and Ning as well as personal web-pages etc) that Second Life itself is seen by the general public as a commercial application. Consequently, popular media outlets and critics of Second Life tend to refer to this particular world as more of a corporate hybrid between “content access software” and “simulation software” than anything historically substantial such as discrete artistic media (i.e. painting, sculpture, architecture, etc). As a consolation then, Second Life has been viewed by the mass-media as an empty proprietary publicity machine that only exists to launch the careers of aspiring avatar personas and corporate presences. However, when artists perceive Second Life as an artistic instantiation of a “medium”, additional aesthetic affordances reveal themselves.

### 1.4.2 Second Life as an Instantiation of a Discrete “Medium”

“Second Life is a new medium for designing”


Since Second Life is a computer mediated digital environment, it would be more accurate to treat this world as a “mix of media” (Meadows, 2009) than as a discrete “medium” in its own right. Bartle, for example, believes that “the two closest art forms to virtual worlds are computer games and film” (Bartle 2004:632). Certainly, there has also been a conflation of Second Life’s “unique” properties with that of virtual worlds and “virtualism” in general. For example, some in-world architects have brazenly declared that “the presence of other people in Second Life is central to what sets it apart
from other media” (Harry, Offenhuber and Donath in Doesinger 2008:69). To make such a vague statement without explicitly declaring whether “other media” also implies “other virtual worlds” further dilutes any discernable emergence of “Second Life-ness”63. Furthermore, this conflation extends to subtle differences between perceiving Second Life as a software “application” rather than a hybrid “medium”.

Perhaps scholars themselves have unintentionally contributed to this lack of semantic differentiation. For example, Lev Manovich relies on the selection metaphor for avatar and world construction (Manovich 1995). By insisting that users primarily create new content through the mere selection of pre-fabricated templates, Manovich blurs the lines between the consumerist nature of an “application” and the opportunities for “originality” available in a “medium”. However, Manovich’s totalizing aesthetic theories about virtual worlds are not entirely to blame. For instance, most of the virtual worlds prior to Second Life64 did actually rely solely on template selection menus and embedded narrative content65 (Zimmerman, 2008). Therefore, Second Life might have been the first virtual world to allow the user to go beyond the introductory template-menus and build customized content “from scratch”.

Arguably, if Second Life was merely a commercial application for socializing and not a medium for raw aesthetic experimentation; there would not be a need for the GUI to contain a tool for free-form building. Furthermore, a reliance on selecting from pre-designed templates would not allow for a culture of abstraction to flourish since practically all known construction modules have currently served representational ends. In other words, there would be no structural opportunity to design “from scratch” according to the more abstract formal properties such as light, space, form and colour.66 If anything, the homogenized structure of template-worlds distracts the user from contemplating the hypermediated (Bolter & Grusin, 1999) aesthetic potential of abstract properties. This is because a Modernist artist will first deal with the essential elements of artistic composition before building. If the “application” only provides templates for selecting and/or purchasing, then these cultural configurations – and not
the things-in-themselves - would be the “elements” from which the artist will begin to compose.

Second Life has provided the user with numerous “tools” and “devices” that allow for a complete customization of forms and shapes. As a result, a good number of artists within Second Life view this world as if it was a specific medium with its own distinct aesthetic affordances. Therefore, the author has selected Second Life as the official research site over other worlds because of the overwhelming tendency of its artistic population to treat this world as a unique “medium”\(^67\) instead of an “application”.

1.4.3 Second Life’s Avatar Appearance Editor

![Second Life Avatar Appearance Editor](image)

**FIGURE 2.** December 19, 2008. This screenshot illustrates the author’s avatar having its appearance edited via the appearance editor window. The avatar’s form was created entirely in-world (i.e. without the use of external software). Wirxli’s clothing pattern was uploaded and textured using a Bitmap (BMP) image from the author’s hard drive.

In order to understand the affordances of avatar in Second Life as a medium, one must first become familiar with this world’s default Avatar Appearance Editor [Figure 2]. In the spirit of the creation-as-selection paradigm (Manovich 1995), Second Life’s appearance window contains sliders that correspond to every highlighted button. These
buttons are arranged into category headings that reveal several more buttons once a particular button is selected and highlighted. Each of these sub-menu buttons contains two mini-preview windows of the avatar per row. These miniature windows display what the avatar might look like if the user selected the extreme parameters for every sub-menu button. For example, the “body” button would reveal sliders for height and the thickness of various body parts. Where the avatar’s height is shown, two preview windows would show the avatar at its shortest and tallest. By moving the height slider to the far left (value = 0), the avatar would be at its shortest allowed by the template. Conversely, by moving the slider to the far right, the avatar would be as tall as allowed by the default interface. Furthermore, other avatars can also see the parameter changes that affect the appearance-editing avatar. The effect is a bit like watching someone “get dressed” although body parts and skins as well as clothes are being “tried on”.

On the downside, there is very little privacy in Second Life to warrant the act of editing one’s avatar to appear even remotely “discrete”. This act of changing clothes and/or body type is by nature then, a social (i.e. exhibitionist) activity. In addition to adjusting the slider values manually, there is also a “randomize” button. This button allows the avatar to choose a completely random set of appearance parameters. As a direct result, quite a lot of aesthetic variety can occur through the careful use of these sliders. As mentioned earlier, this playful oscillation between body types, skin, hair, clothes, and cosmetic applications is quite often part of a very public display of pure spectacle that includes many nearby voyeuristic avatars.

Once the author finally decides on a (temporary or permanent) look and style, he/she can save different appearances directly into the inventory folder by pressing the “make outfit button” for quick retrieval. This allows the avatar to save a virtual closet full of archived different physical appearances and fashion choices. Users retrieve their saved “outfits” on demand via a keyword search as soon as he/she presses the “inventory” button at the bottom of the screen. The convenience of being able to choose between various hair-styles, clothing, accessories, make-up, tattoos and body-types allows for the author to always be “dressed for the occasion” just in time for the
next high-profile event. This constant access to new appearance styles removes the “real life” need for having a professional stylist around to help prepare one for special events.

In terms of gender selection, one has a tiny checkbox from which to select between a default male or female humanoid avatar. However, even after one selects a gender for their avatar, it is relatively easy to make the avatar’s gender appear completely ambiguous. Making your avatar visually androgynous can occur through the careful use of the appearance sliders that appear underneath preview windows (next to the sub-menu buttons). In one example, a default avatar body-shape was set to “male” but after some slider modifications, it was no longer clear if the avatar’s form was male-like in appearance. This means that this tool’s cultural functionality is virtually useless in terms of locking an avatar into one gender or another. This checkbox only exists to conveniently select a gender in case one has virtually no time (or energy) to spend time on gender customization. As a result, many attention-seeking avatars are gender-ambiguous in appearance. The selection choice for that particular avatar example was made with the intention to alienate the avatar persona from the author’s biological form in “real life”. Symbolically, this alienation represented the artificiality of cyberspace. Therefore, the potential to switch between avatars allows the user to freely experiment with different appearance types until he/she settles on a look that becomes “popular” and/or consistently “stands out”.

Finally, once a user presses and highlights the “skin” sub-menu button, a new level of intimate customization becomes available. An author can upload any JPEG or BMP image texture from their off-world hard-drive and map the image directly onto the skin of their avatar – even directly onto their face. The face itself acts as a kind of mask with the ability to add virtual mascara and other cosmetic options such as eyeliner and blush. The relative ease and ability to modify the amount of make-up using sliders and/or uploading customized face tattoos allows the author the affordance to increasingly transform their face into a kind of reality-attenuating “mask”. According to Janet Murray, “the mask sets off the participants from the nonparticipants and
reinforces the special nature of the shared reality. It creates the boundary of the immersive reality and signals that we are role-playing rather than acting as ourselves...

*It (the mask) gives us our entry into the artificial world and also keeps some part of ourselves outside of it.*” (Murray 1997:113).

Second Life’s 2.0 Viewer has some additional features for avatar customization. For example, non-anthropomorphic avatars are now easier to make as the user can select alpha-channels that renders the avatar form completely invisible. From this “invisible” or “absent” condition, one can custom design body-parts that can be worn over any hidden body part in order to make a brand new torso and limbs. Furthermore, the web-on-a-prim and extended video texturing features in 2.0 allow the avatar designer to map streaming video onto clothing and custom-built prim body parts. As a result, video texturing is now being perceived as an additional affordance for avatar design in Second life. However, 2.0 was not publically released until after this thesis research had been conducted so these additional considerations will be articulated in Chapters 9 and 10.
CHAPTER 2: RESEARCH SITE

2.1 Reasons why Second Life is the Chosen Field of Research

“What motivates people to look a certain way is something I wouldn’t even begin to speculate on. Ultimately your avatar is your representative in-world and can run the entire range of your personality. It’s your Second Life; be whomever and whatever you want to be.” – Isablan Neva [SL name], 2007. (Rymaszewski [Ed.], 2007:78).

Contrary to the position made by Neva’s quote; it is precisely this ontological ambiguity towards an avatar’s mode of representation that makes Second Life the most ideal research site for aesthetic experimentation. Right from the beginning, Second Life was designed as a virtual world platform whose narrative properties would exclusively be created out of “user-generated” visual content. Unlike many other virtual worlds at the time, Second Life privileges the avatar itself as the originating source of content/context creation rather than showcasing the exploratory nature of a given spatial environment.

Second Life’s user-experience methodology revolves almost entirely around what Marie-Laure Ryan called the “ontological mode” (Ryan 2004). This modality is in stark contrast to the “exploratory mode” (Ibid) favoured by the designers of previous chat-based virtual worlds. In the “exploratory mode, users are free to move around the database, but this activity does NOT make history, nor does it alter the plot; users have no impact on the destiny of the virtual world. In the ontological mode, by contrast, the decisions of the user send the history of the virtual world on different forking paths.” (Ryan 2004: 339 Underlining and bolding by the Thesis Author.) In the case of Second Life, Ryan’s ontological mode is suddenly fore-grounded as the prime mover behind the exploratory mode of this user-generated world’s spatial narrative. For most chat-based
virtual world and MMORPG created before Second Life, developers created the story-world’s infrastructure before allowing avatar habitation. Consequently, users before Second Life could only define their unique role within the world developer’s pre-defined narrative modules. Users’ aesthetic preferences for self-representation were delimited by the rote selection of template body-parts, objects and the embedded nature of the narrative content (Manovich 1995).

As both a “medium” and a commercial “application”, Second Life challenges this selection-metaphor by allowing users relatively convenient access to additional real-time accessory building tools. The “build” button, existing beyond the body-template selection window - allows the atomic construction of customizable geometrical “prims”. In addition to choosing Second Life as a research site for structural reasons, the open culture nurtured through this world’s emergent narrative helps determine an avatar’s visual design and/or selection.

2.1.1 (Avatar) Design Affordances and Limitations of similar Virtual Worlds...

Most virtual worlds (usually games, Chapter 1.3) maintain interactive equilibrium and narrative unity through a balance between pre-fabricated ontological and exploratory opportunities (Ryan 2004:339). Players constantly sought ways to maximize their quantifiable standing within the narrative limitations of their avatar’s archetype template. Earlier virtual worlds such as Digitalspace Traveler, Blaxxun’s Cybertown, Active Worlds and There (Dickey 1999) dealt with two non-ludic avatar design constraints. Namely, the infrastructural constraints and the corporate promotional apparatus directly inhibited the creation of elaborate real-time avatar creation tools.

Non-ludic virtual worlds invented prior to the creation of Second Life, catered to the user’s own client-side hardware limitations at the time. An example of this kind of early virtual world was Digitalspace Traveler (1995). Traveler was developed for use with a 14/4 dial-up modem and 386 PC computer. Due to bandwidth and server-storage
limitations of the 1990s, developers divided Traveler’s environment into isolated “rooms”. These discrete room-sized spaces provided an economical alternative to expansive Cartesian environments. Furthermore the amount of polygons that a 1990s video-card could process in real-time was severely limited. As a result, world-creators and their avatar users decided not to focus on dimensional nor representational detail. Users did not even require room-to-room navigation as a social motivator. The avatar’s purpose was to socialize face-to-face with another user rather than teleport across a virtual space. Concerned with “abstract representation”, an avatar’s scale in Traveler did not need to be entirely representational. Since fully detailed anthropomorphic figures increased expectations for inter-connected rooms, the creators dropped the bodies altogether. Instead, Traveler’s creators accentuated the platform’s voice-chat aspects by focusing on an avatar’s head and facial regions [Figure 3].


Using their promotional apparatus as the narrative framework for their story-world, other world-creators ensured that their avatar appearance editor only included pre-fabricated archetypal character components. Predictably, these creators facilitated minimal levels of customization so that users purchase their way into a completely “customized” personality.
In the early days of Active Worlds, users initially had to select a gender and wear a generic “tourist” humanoid avatar form [Figure 4]. Active Worlds had intentionally “coerced” new users into the “tourist” role as a way to “embarrass” them with its visual representation of personified mediocrity and naivety. The humiliation suffered by users would compel them to upgrade their appearance by subscribing monthly as a worldly “citizen”. As a reward, this “citizen” would then have privileged access to wearing additional archetypal avatar forms. Alternately, developers can purchase a private world-server using the Active Worlds technology if they wish to import their own 3D models from external software applications and provide venue-themed body-parts for additional user customization [Ibid]. Besides being the most customizable chat-based platform to date, Second Life’s academic resources are also the most developed.
2.1.2 Depth and Breadth of Available Research Resources in SL

“SL is not the first such online 3D persistent community, and it is by no means flawless; we are definitely going to see SL and rival products change and evolve significantly. However, SL’s increasing popularity have already made an interesting target of research in its own right...” – Friedman, Steed and Slater, 2007.

Primarily because of its user-generated infrastructure and relatively liberal-minded community demographic, Second Life remains the most analyzed site of artistic experimentation within virtual worlds. Compared with similar chat-based virtual worlds, scholarly writings about Second Life have proliferated online and in print. This rapid proliferation of available scholarly resources about Second Life with regards to arts and educational applications are on an order of magnitude exponentially greater (Diehl, William & Prins, 2008;Gartner, 2009) than even its closest competitors such as The Sims Online, There and Active Worlds. In fact, there are even social networks created precisely for connecting academics who study Second Life. Interestingly enough, Second Life is a much newer virtual world than its closest competitors, and yet it has far more scholarly material devoted to it as a research site. One explanation for this disproportionate level of popularity is that Second Life’s publicity/marketing engine (Kaplan & Haenlein 2009) was effective enough to finally bring virtual worlds into mainstream consciousness.

By the peak year of 2007, the brand of “Second Life” was the first to become a household name and “claimed an online population of over 10.3 million users, with more than 80 academic institutions estimated to use the platform”. Because of this, many scholars rarely refer to other non-ludic virtual worlds even though similar platforms have existed with thriving creative communities for at least a decade prior to Second Life’s inception. Another reason for Second Life’s academic popularity stems from the sheer diversity of its numerous creative communities. It is of little surprise then to find that academic writings about art and aesthetics in Second Life far surpasses
that of literature discussing other worlds – including popular video games. Therefore, Second Life was clearly the most appropriate research site for discussing avatar design and art on an academic level. The researcher’s next challenge was to locate an in-world community of artistic praxis in Second Life that contained participants with sufficient knowledge of the Modernist academic discourse. The community that successfully met this criteria is “Odyssey Island”.

2.2 Odyssey Island as the selected Arts Research Field Site

2.2.1 The Artistic Community of Odyssey Island

“Spaces like Odyssey provide performing and exhibiting artists an environment in which to ask fundamental questions about art, culture, entertainment and the nature of reality”. – Rackham & Mccrea, 2008. (Doesinger 2008:149).

Odyssey Island is one of the most publicized and academically developed art-scenes in Second Life. The avatar Sugar Seville - sponsored by the UK-based online publishing company “Dynamis PLC” - formed the virtual island in 2006. With over six hundred members, many artists-in-residence, and hundreds of historically verified events to date, Odyssey Island promotes the personal mythologies of each avatar artist. Consequently, Odyssey’s community has officially entered the “real world’s” art-historical discourse.

A large percentage of Odyssey’s artists have obtained “real-life” art-history and/or fine arts training and are mostly well aware of the Modernist discourse. The researcher/author has maintained a prolonged engagement with this community as an artist and music composer since 2006. With this sample group in mind, the researcher contacted Odyssey’s current manager Helfe Ihnen [SL name] in 2008. Shortly thereafter, Ihnen personally constructed a “skybox” as a controlled research site for this thesis’ case study sessions.
2.2.2 The Avatar Creation Research Skybox on Odyssey Island

Acting as Odyssey Island’s community “gatekeeper”, Ihnen created an unadorned skybox for the case-study sessions. This skybox hovered above Odyssey’s main island and was large enough to contain approximately ten regular sized avatars. In addition, the roof was equivalent to the height of approximately five avatars to account for any non-anthropomorphic designs. This research site space was intentionally white and left un-textured. The reason for this skybox’s ornamental neutrality was to subliminally influence the participants towards designing their avatars in a conventionally “Modernist” (i.e. Minimalist) manner. For confidentiality reasons, the skybox design was preferred over the more publically visible terrain-level “sandbox”. However, there were some privacy concessions made in order to allow creative freedom for the participants. For example, the skybox’s open-plan architectural structure allowed the participants’ avatars to have the necessary freedom of movement.

Unlike skyboxes, sandboxes are public spaces where users can iterate their creations without constant permission granted by a local landowner. Throughout Second Life’s artistic community, skyboxes are the architectural model of choice for two reasons. Firstly, skyboxes are located high up in the sky – above the general populace - to provide for private aesthetic contemplation. Secondly, this relative seclusion allows artists to conduct clandestine research and development projects. Since this was private academic research, Ihnen ensured that he placed the skybox in an obscured location – not visible on the mini-map. As a result, this skybox could only be accessible through gravity-defying “flight feathers” and/or a direct teleport from the researcher.
CHAPTER 3: THEORETICAL FRAMEWORK – MEDIUM AND ARTEFACT SPECIFICITY

The Modernist Art-Historical discourse is the dominant meta-narrative for understanding essential principles in any given medium – especially technologically mediated ones. Modernism as an aesthetic paradigm directly addresses the affordances of built/assembled/transcoded/arranged artistic compositions – including their resulting artefacts. The Modernist discourse contains a full literature review – beginning with Neoclassicism - that addresses medium specificity in detail. Modernism’s historical trajectory through stylistic “modernity” towards hyper-modernism (“Late Modernism” or “High Modernism”) culminated in the Minimalist movement of the 1960s (Strickland 1993:4-5). In recent years, a retrospective interest with Modernist aesthetic principles has been unofficially revived as “Neo-Modernism”. With the advent of “New Media”, medium specificity has been re-articulated and challenged throughout the recent decades. When applied to this “New Media”, medium specificity dealt with the artwork’s discrete behaviour and authenticity. Although early Modernists pioneered the rebellious spirit of “modernity” through many novel visual innovations, the historical period of Modernism most concerned with aesthetic autonomy, medium specificity and “authenticity” was Late Modernism. Therefore, this discourse privileges a Late Modernist imperative and includes the disciplines of painting, sculpture, architecture, theatre/performance and virtual worlds.

3.1 History

Since at least the Neo-Classical era of the Enlightenment in 1776, there has been a centuries-long art-historical discourse surrounding the aesthetic parameters for
defining an autonomous medium. Critics such as Gotthold Ephraim Lessing were beginning to deliberate over which “unique properties” belonged to one specific medium over another. This line of thinking of discrete media as being “authentic” and “separate” from the Aristotelian poetics (Aristotle 350 B.C.E. in Heath 1996) of other media climaxed with the 20th Century’s Modernist meta-narrative of “medium specificity”. The first renowned critic to champion medium specificity in the modern age was the controversial art-critic, Clement Greenberg.

According to Greenberg, any “authentic” artwork would display clearly the discrete design considerations afforded by the peculiar characteristics of a given medium. In his interpretation, an artwork’s “material properties” would visually reveal the processes that led to that particular artwork’s creation (Greenberg 1940 in O'Brien 1986). Greenberg’s theories inadvertently inspired an entire hyper-modernist art-movement known as “Minimalism”. Minimalism – also referred to as “Literalism” - spawned arguably that movement’s most dogmatic adherent, Donald Judd. Judd took Greenberg’s ideas about medium specificity to their logical limits as he also rejected anthropomorphic forms and intentional “composition” out of heterogeneous parts in sculpture and painting (Judd, 1965).

The advent of more inter-disciplinary technologies culminated in the ubiquitous use of the internet and networked virtual worlds in the early 21st Century. Consequently, the Modernist paradigm’s critique known as “Post-Modernism” - had surfaced as a concept in the early 1970s (Greenberg 1979). By the late 1970s, Post-Modernism had grown to full fruition as the dominant paradigm for understanding the poetics behind artistic theory and praxis. This mainstream Post-Modernist sensibility had transcended an emphasis on “fundamental” and “specific” design elements in favour of “frivolous” content appropriation from previous art movements and mass-media outlets (Bolter 2007). Post-Modernism (through bricolage, simulacra, etc) mirrored the interdisciplinary age but at the cost of a close analysis of elemental design principles. These principles enabled artists over the decades to clarify their purpose and allow for an authentication of art produced in a particular context (such as a virtual
world). Seen as “Masters of their Craft”, those artists who adhered to this structural paradigm became academically validated and promoted by critics, artists and designers.

As a historical artefact of the Post-Modern ethos, Second Life is a world that is “interdisciplinary” and “multi-media” in nature. Therefore, a narrower Modernist research interpretation (focusing on Late Modernism) can closely analyze each of the idiosyncratic poetics behind avatar design in Second Life. Neo-Modernists in this domain can focus on attributes that are unique to that particular virtual world (or to virtual worlds in general). On the one hand, there have been some journalistic and semi-academic explorations into the analysis of virtual spaces in Second Life through the lens of medium specificity (Heim 2000-2004 & Dena 2006). However, there has not yet been much exploration into the specificities of avatar design. Since avatars usually begin as “anthropomorphic” forms, Modernism’s pursuit of essentialism contradicts Judd’s non-anthropomorphic criteria for “specific objects” (Judd 1965).

It is also presently unclear which aspects of content-creation tools - provided within Second Life’s indigenous interface - most expediently allow users to render socially engaging avatars. In part, this research explored the degree to which users relied on template menu-sliders for “body part” selection (Manovich 1995), modular assembly of pre-purchased “limbs” and “accessories” or the manual construction of “prims”. As these processes influence an avatar’s designed outcome, this research analyzed which Second Life’s iteration procedures contributed towards a user’s artistic competency within one virtual world instead of another. The “Modernist” method for evaluating such “artistic competency” involves competing qualitative judgements regarding universal “taste” and “beauty”.

3.1.1 Pre-Modernist Interpretations – Kant and Wölfflin

Modernist and Postmodernist critics alike have been discussing the philosopher Immanuel Kant’s influence on Greenberg’s aesthetic sensibility. Greenberg himself had credited Kant as the main influence on his thinking about universal “taste” and “beauty”
in art. Critics however, questioned the extent to which Clement Greenberg correctly interpreted Kant’s aesthetic sensibilities in the first place.

In his “Analytic of the Beautiful” from his corpus the “Critique of the Power of Judgment” (1790), Kant divides “beauty” into two categories: “free” beauty and “adherent” beauty. With “free” beauty, the viewer contemplates the raw and timeless aesthetic superiority of unmediated “natural” forms. These organic formal properties – usually discovered and not created – are cognitively appreciated through a highly subjective process of intuition that occasionally leads to more deliberate contemplation. “Adherent” beauty, on the other hand, is contextually dependent on historical, conceptual and/or theoretical mediations in order to be understood as “beautiful”. “Adherent” beauty then is dependent on external diegetic modes of transmission for its “universal” validation – usually from an academy or similar taste-making elite. From Kant’s point of view, “free” beauty was reserved for non-art objects whereas “adherent” beauty was the domain of the self-conscious art-object. According to Ken Carpenter, Kant never intended (self-conscious) art to have an intended “end” or “purpose” other than its “being capable of instructing and elevating” (Carpenter 2008:1). In fact, Kant placed emphasized the idea that only free beauty was entitled to a divine end or purpose. For Kant, adherent beauty was a secondary aesthetic consideration since the only real “importance in art lies in mimesis (truth to nature)” (Ibid). Apparently, Kant intentionally “placed art in its own category separate from function” (Ibid).

Neo-Kantian critics believe that Greenberg intentionally conflated these two definitions of beauty. Apparently, the purpose of Greenberg’s conflation was to limit any discussion of aesthetic appreciation (i.e. “taste”) only to issues surrounding medium specificity. Further, Greenberg conflated Kantian aesthetics despite the continued observation that some objects both inside and outside of the art-world are not appreciated as literal equivalents to natural phenomena (Carroll 2008:1). Greenberg so admired the non-diegetic and non-representational (i.e. literal) purity of “free” beauty that he unrealistically set it as an idealistic criteria for “adherent” beauty as well. As a result, many Postmodern critics saw Greenberg’s invocation of Kantian Universal Beauty
as fundamentally problematic. Many critics became suspicious of Greenberg’s Modernist Imperative as it seemed to rely solely on (his personal interpretation of) Kant’s authority.

As an alternative to Kant, Wölfflin developed a more anthropomorphic view of “beauty” known as “Symbolization” (Wölfflin in Hart 1982). Symbolization is the belief that people appreciated the beauty of an object’s formal properties due to unconscious personification of the forms in question. Therefore, had Greenberg also synthesized Wölfflin’s theories alongside Kant into his conception of universal beauty; Modernism as a critical framework would have been more robust and able to handle Postmodern complexities relating to: anthropomorphism and “character” (i.e. narrative functionality). It is through this speculative synthesis of Kant and Wölfflin where we gain deeper insight into the inevitability of Late Modernism’s (i.e. Literalism’s) perpetual debasement into theatricality – across all media (Chapters 3.2 and 3.3). Finally, it is from this synthesis between abstraction and personification that more clearly illuminates the significance of this thesis’ research findings and conclusions (Chapters 8 and 9).

3.2 Modernism and Specific Media

To better understand this discourse, below are examples of Modernist artists working within more conventional visual disciplines such as: Painting, Sculpture, Architecture, Performance Art, Theatre and also from within the Virtual Worlds’ own historical context(s). Since “modernism or several conflicting modernisms was a historical force” (Sitney 1990:2) behind almost all of the art produced during the 20th century, only a very small number of representative examples are provided. The following visual arts examples – hardly exhaustive – are among those that have most explicitly mined “the greatest works of the tradition for irreducible structures” (Sitney 1990:1. Underlining by the Thesis Author).
3.2.1 Painting

“Y. But I thought that it was a virtue of painting to suggest the volume of things.
Z. That is relatively true: naturalistic painting does try to create the illusion of volume, but actually it uses the plane.
X. Yes, all the great masters kept their modelling relatively within the broad contours.
Z. And Modern artists were already becoming more conscious of the fact that painting demands the plane.
X. But exaggeration can lead us into decorative painting!”
Z. Painting will by no means become decorative or ornamental art – what is usually thought of as decorative painting“.

Modernist painting— in its extreme unadorned form - is characterized by its “materialness of the physical qualities of the painting’s surface” (Paccione 1989:1). These material affordances brought to the forefront by Modernist painters included: the volumetric planar qualities of the canvas frame (Judd 1965), the expressive potential of the canvas surface (Rosenberg 1952), the paint as a separate texture, the flattening of pictorial (representational) depth (Greenberg 1952), and the artefact’s overall spatial relationship to the wall (Ibid and Judd 1965). An aesthetic theme that unifies all of painting’s modernist aspects involves “space” and “materials”.

Confronted with the Pre-Modernist history of painting, early Modernists had to come to terms with the fact that painting was treated as an imitative (representational) container that depicted pictorial content – usually for “narrative” (i.e. mimetic and diegetic) purposes. Once the photographic camera was invented and had become relatively ubiquitous, Impressionist artists in France chose to go beyond mere depiction of landscapes and events (J. House in Lewis 2007:81). Instead, many impressionist paintings emphasized the remaining affordances of their medium through heightened colour contrasts and textured brush-strokes. These impressionist markings reminded their viewers that what they were essentially making were “paintings” and not simply
“pictures”. For perhaps the first time, the colour of the paint and the painted texture on the surface become more important than the portrayed subject matter. This is because these effects were not achievable (yet) through photo-based media. In this sense, the Impressionists mildly dabbled with “abstraction”. Cubist and Futurist “abstract” painters such as Picasso, Braque, Leger and (early) Duchamp chose to further subvert paintings’ pictorial honesty by optically oscillating (distorting) their figures’ spatio-temporal depictions.

The Suprematists—led by Kazimer Malevich—foreshadowed the Minimalist aesthetic by a few decades. By painting a surface entirely black, Malevich claimed to have rejected a representational (i.e. pictorial) reading of his work and chose instead to expose the “craftsmanship” of his technique through the brush-strokes of the artist’s hand. As Malevich had lamented, representational painting had run its course and as far he was concerned, “the virtuosity of the objective representation is the only thing admired” (Malevich 1915 in Chipp 1968:342). Also emphasizing virtuosity (mastery), Piet Mondrian along with his inter-disciplinary movement “De Stijl”, pushed the Modernist aesthetic forward by focusing only on painting’s fundamental denial of illusionistic, naturalistic and representational space. For example, Mondrian exclusively used static painted lines (i.e. no dynamic diagonal lines to suggest movement), and the application of primary colours (i.e. no “natural” looking colours such as green). Furthermore, Mondrian thinly applied marks indicating positive space (i.e. tiny lines demarcated using tape) while leaving vast areas of “negative space” (i.e. the raw or primed canvas) unmarked. Applying his methods in this manner, Mondrian drew upon direct inspiration from the grid as a means to clearly demarcate a figure/ground relationship and the surface of the picture-plane.

Unlike their European counterparts, Post-War Abstract Expressionists in New York worked directly with the materials of paint and surface in real-time. For example, Greenberg’s most critically esteemed painter was Jackson Pollock. Pollock’s maximalist “action paintings” are examples where he moved the unframed canvas from the wall to the floor so he could work directly onto the canvas. As a way to
avoid explicit representation (depiction), Pollock dripped house-paint directly onto the canvas’ surface without consciously thinking about the image he was going to create.\footnote{133} The residue of his paint splattering became part of the artefact and depicted nothing more than Pollock’s abstract activity.\footnote{134} Ultimately, Pollock addressed the act of painting rather than the subject matter.

Once the promotional engine of Abstract Expressionism had run its course by the early 1960s, some Modernist concerns with the surface of the picture plane and the materiality of paint cynically remained.\footnote{135} For example, a movement known as “Op Art” used overt optical “trickery” as a way for viewers to re-focus their attention of the illusionistic properties of the viewing surface (Barrett 1970:4). By this point, however, the competing paradigm of Postmodernism was beginning to emerge. In retrospect, these optical experiments are almost seen as novelties that tacitly subvert Modernism’s aesthetic authority over the art-world.

Late Modernist ideas began to reach its theoretical apex in the mid 1960s. During this ambiguous period, painters began to take the literal spatiality of their paintings so seriously that the medium itself was in structural danger of losing its own identity. What emerged in the place of painting was a “\textit{three-dimensional art}” (Judd 1965) that more closely resembled sculpture. As the virtues of pictorialism were being increasingly debased by Modernist critics, trained painters began to believe that their medium was inferior to the materially defined “shape”\footnote{136} of sculpture. Judd – a former Expressionist painter – conceded that, with paintings made before 1946, “\textit{the edges of the rectangle are a boundary, the end of the picture}” (Ibid:1). With anti-pictorialism in mind, Modernist painting’s critical dominance was supplanted by the “\textit{Literalist}” affordances of modernist sculpture.

\section*{3.2.2 Sculpture}

\begin{quote}
\textit{“\textit{...Sculpture, as I see it, will have to completely disregard the pictorial}”}

\end{quote}
After painting’s complete pictorial dispensation with “imitation” and “literature” (i.e. representational “subject matter”), how was sculpture going to address its own unique affordances? Greenberg believed that sculpture’s distinguishing feature was its (literally) physical resistance to materials and “the efforts of the artist to ply” these materials “into shapes uncharacteristic of stone metal, wood, etc” (Greenberg 1940 in Frascina 1992:67). A preoccupation with a sculpture’s literally physical presence, then, sparked an entire sub-movement of the Minimalists called the “Literalists”. Beyond painting’s concerns with gradually delimiting pictorial flatness via the picture plane; the Literalists explored the psychological, spatial and material affordances of their medium as a celebration of “objecthood” (Fried 1967).

Historically, sculpture’s origins in Western Art did not directly obsess over issues of materiality, presence and physicality but in fact, mirrored the pictorial limitations of early painting. Just as with painting, sculpture was a representational medium. The only fundamental difference at the time was that sculpture manifested its representational content into three physical dimensions. Furthermore, sculptors intended their sculptures to be persistent (permanent) and last the entropic tests of time and space (Innis 1951 in Innis & Watson 2008). Similarly, sculpture used both diegetic and mimetic modes to convey “narrative” information. For example, the figure would display the mimetic content while the corresponding memorial plaque would materialize additional diegetic content (if required). Arguably, the only elements of a sculpture that were historically “extra-pictorial” would have been the pedestal and the base. Traditional sculpture – with its anthropomorphic scale - relegated to “statuary” (i.e. three-dimensional portraiture). Likewise, monumental sculpture, despite its large scale, was still a subordinate medium to architecture.

In the Modernist era, both sculpture and painting dealt with issues relating to their structural supporting mechanisms (Morris 1966/67 in Harrison/Wood [Ed/1992:814). Whereas with painting, the structural support was the picture-frame; sculpture on the other hand, literally relied on the pedestal and the base for its support.
Unlike painting, sculptors paid aesthetic attention to their medium’s support a few decades prior to painting’s structural pioneers. Auguste Rodin, for example, embedded sculptural figures directly into the pedestal and base. Rodin subsequently obscured the lines between discrete figure and ground hierarchies. In the case of “The Thinker”, Rodin’s bronze figure appears to have been sculpted directly from his pedestal-base hybrid shape. Essentially, Rodin’s intentional exclusion of a distinct pedestal and base inspired the Literalists to conceive their own sculptural output as gestalt compositions\textsuperscript{137}. However, this gradual integration of the figure with its other constituent parts did not end with Rodin’s experiments.

Working around the same time as Rodin, Constantin Brâncuși sought to unify sculpture’s component parts into a gestalt composition. For example, his work “Sleeping Muse” contained no base nor pedestal. On the contrary, Brâncuși carved directly onto a single bronze sphere to render a semi-abstract face. Without a torso and limbs, the “Sleeping Muse” confronts the viewer with its muted facial features. From the context of avatar design, an emphasis on the disembodied face more closely relates to intimate emotional communication rather than navigation. Pictorially speaking, Brâncuși’s abstract tendencies did not end with the muted expression of his bronze face. In fact, Brâncuși’s cast-iron funerary sculpture, the “Endless Column” has done away altogether with explicit pictorial representation. As a free-standing totemic figure, Brâncuși’s use of cognitively infinite repeatable modules appears to have no discernable pedestal nor base. If anything, the “Endless Column” is little more than a vertical series of “bases”. If there is an independent “base”, its occluded visual appearance appears isometric in relation to each repeated module.

By treating the “base” as the compositional focus, Carl Andre isolated the base and made it the sole physical configuration\textsuperscript{138} of his sculpture. Initially inspired by Brâncuși, Andre’s early sculptures tested the material resistance of his sculpting processes with gestalt forms by carving and sculpting directly onto a singular material component such as a wooden stump. Andre gradually evolved his Brâncușian practice from “cutting the material that he used” to discovering that “the material itself cut the
Andre used multiples of isometric items (i.e. bricks, copper tiles) to create nothing more than the base itself as sculpture. This way, Andre’s completely flat floor sculptures compelled the viewers to walk directly onto the base and become the memorialized figures. On a cognitive level at least, Andre’s base-only sculptures are technically “monumental”. This is because the figure-less space becomes a “monument as abstraction [...] as pure marker or base, functionally placeless and largely self-referential” (Krauss 1979:35).

Historically speaking, Andre’s work officially ushers in sculpture’s Late Modernist period since “the modernist period of sculptural production [...] operated in relation to this loss of site” (Krauss 1979:35). Finally, Andre’s “fetishization of the base” has resulted in floor-based sculptures that “depicts its own autonomy” by reaching “downward to absorb the pedestal into itself [...]” (Ibid).

Minimalism – epitomized by Andre and others - had literally knocked sculpture off its pedestal. These artists challenged the traditional conventions of sculpture: representation, illusionism, craftsmanship, permanence, and even “objecthood” itself. Minimalism presented a new set of formal strategies: the grid, seriality, identical modular units, geometric structure, industrial materials, and fabrication. Materiality aside, many of Andre’s contemporaries focused on a sculpture’s literal scale and physical presence. For example, Tony Smith had a hollow steel black cube fabricated by external contractors and exhibited it as “sculpture”. When questioned about its modest six foot high scale, Smith claimed that he did not want his cube to be too large because he was “not making a monument” (Morris & Smith in Battcock 1995:229). Furthermore, he did not want his cube to be too small either since he was “not making an object” (Ibid:230). Smith’s claim was based on the Literalist idea that non-representational sculpture did not need to resemble a “part by part” composition but could focus on its own gestalt “presence”. Smith, Judd and other Minimalists sought to create a depersonalized art in which the physical properties of space, scale, and materials were explored as phenomena of interest on their own, rather than as
metaphors for human experience. As Judd once remarked, “a shape, a volume, a color, a surface is something itself” (Judd 2001).142

Literalism, at the time, was diametrically opposed to the relational sculpture of Anthony Caro whose heterogeneous components resembled anthropomorphic “limbs” (Fried 1967 in Fried 1998:162). Greenberg’s disciple, Michael Fried, subsequently accused Smith of hypocrisy for hiding the fact his cube secretly possessed an anthropomorphic identity. As far as Fried was concerned, Smith’s human-scale works functioned as a proxy for a “statue” or an anthropomorphic “presence” that resembled a “surrogate person” (Fried 1967 in Fried 1998:156-157). Fried went further to accuse Smith and Literalists for creating sculptures that covertly endorsed narrative functionality and therefore, were inherently “theatrical”. In addition, Fried defended Caro’s sequential compositions by arguing that his relational forms actually dilute theatricality since its objecthood (gestalt) is distributed over a few narrative forms (Ibid:162). Resulting from Fried’s accusation, Modernist sculptors had to come to terms with the fact that if they attributed any other aesthetic property than “material resistance” to their sculpture, critics would deem their artefacts as causal agents (i.e. props or characters) for an abstract variety of participatory theatre.

Once Andre had cognitively rendered every person, thing or idea above the base as sculptural “figures”, the Modernist discourse became open to the idea that abstract sculptures could embrace fleeting semblances of participatory theatre. With theatrical affordances in mind, Conceptual Artists in the 1970s began to look out for additional abstract “materials” to “sculpt”. In many cases, these new “materials” that were sought after by “sculptors” were actually immaterial (i.e. increasingly virtual) in nature. One such material that crossed over from the physical to the virtual is light. Light-based sculptors such as Dan Flavin, Robert Irwin and James Turrell were drawn to the elusive properties of light partially because sculpturally speaking, light illuminated the “phenomenon, not the object” (Foster in Weiss 2006:145). These “sculptors” focused on “the other side of the frame” (Ibid) and therefore, went far beyond painting’s pictorial limitations. Flavin’s light-based artwork, for example, “[...] moves beyond the frame of
painting and off the pedestal of sculpture into a realm less of specific objects than of pictorial space unbounded and writ large” (Ibid:142-143. Underlining by the Thesis Author). Flavin’s work also anticipates the affordances of virtual space in that he “does not negate illusionism so much as he extrudes it into actual space” known as “reverse illusionism” (Ibid. Underlining by the Thesis Author). For Flavin’s “additive” and “modular” work (Ibid:152), both the exposed fluorescent tubes (filled with mercury vapour and argon gas) and the emitting light mediated illusionistic phenomena as essentially equivalent structural components. Initially, Flavin’s work – seen outside the “medium” of light – may seem ambiguous. This ambiguity is due to the fact that his work is “neither painting nor sculpture (although it possesses elements of both)” (Weiss 2006:viii). Therefore, if light itself is the medium, the fluorescent tube-lamp is the objectified transmitter of this medium. From a materialist point of view, one may argue that the lamps themselves are the medium. Flavin relates to the difficulty in perceiving light itself as a medium since his work paradoxically addresses both “immediacy” and “mediation” as well as “materiality” and “immateriality” (Ibid:142)

For Joseph Beuys, “immaterial” sculpture as a medium was much more than the Modernist enterprise of sculpted mark-making on a literally “material” substrate. In 1973, Beuys invented the concept of the “Social Sculpture”. As part of his official artist statement, Beuys sincerely believed his social sculptures were “stimulants for the transformation of the idea of sculpture [...] about [...] how the concept of sculpting can be extended to the invisible materials used by everyone” (Beuys 1973 in Kuoni 1990:19). Mirroring Andre’s occluded figural space, Beuys virtualized all of his “sculptural” components (including his cognitive support structure mechanism) by leaving his entire “sculpture” open to the dynamism of social relations. Both Andre and Beuys foresaw that once the resistance limits of a sculpture were materially exhausted, there was little left for aesthetic contemplation – for its own sake – other then narrative and social functionality as expressed through none other than “characterization”.

On the subject of “functionality”, perhaps the most “functional” of all media is architecture. Furthermore, the legacy of Neo-Classicism first dealt with architecture’s
structural issues before that of painting and sculpture. Alongside painting and sculpture then, architecture also has a detailed history of Modernist progression. In the case of Architecture more than the other visual media, a self-conscious attitude towards simple formal expression goes back in time to at least the Neoclassical period.

3.2.3 Architecture

“Architecture remains space construction, and must satisfy practical requirements. Sculpture is more free” (Mondrian 1919 in Braziller 1995:62).

One of the main differences between architecture and sculpture is one of scale. Unlike traditional Sculpture’s memorializing function, architecture was seen - first and foremost - as a functional living space. It is for this reason that architectural projects tend to be realized at a much larger scale than sculpture. At the bare minimum, Architecture is expected to be large enough to shelter at least one person. In many cases though, scale is meant to be much larger than for single-shelter use. Serving a symbolic ritual and congregational purpose, Neoclassical small-scale architectural projects still tended to embody a sublime presence by appearing “large” and “colossal” (‘Basilica’. Boullee 1793 in Rosenau 1953:91). Boullee - the most visionary of Neoclassicist architects - inflated the perceived scale of the architectural space to the point where, “the laws of optics and the effects of perspective give an impression of immensity; at each step, the objects appear in a new guise and our pleasure is renewed by a succession of different vistas” (“Basilica”. Boullee 1793 in Rosenau 1953:90). Space, in both its ritualistic and functional forms, is the primary component of architecture. When space and mass interact, an artefact possesses “architectural form” (Bacon 1974 in Ching 2007:33). Other properties that define architecture as a distinct medium include building materials, the “modulation of light and shade” (Ibid) as well as colour. In fact, an architect expresses “quality” through the skilful harmonizing between “interior spaces” and the “spaces around buildings” (Ibid). If one also factors in the “exterior appearance(s)” (i.e. the façade) of the space, then virtuosity is also built
around establishing a firm figure-ground relationship with spaces and other built entities.

Like the Literalist Sculptors centuries later, Boullee was grappling with the inherent anthropomorphism and theatricality that results from dealing directly with the relationship between built entities and the surrounding space. Believing that harmony equalled (anthropomorphic) symmetry, Boullee dwelled upon the atomistic “regular volumes” found in basic geometric shapes, planes and masses (Boullee 1793 in Rosenau 1953:86). Disenchanted with the “mute sterility” and indistinct complexity of the planar configurations of “irregular volumes”, Boullee focused on the “regular volumes” for their “regularity, symmetry, and their variety”. Boullee also praised regular volumes for their repeatable anthropomorphic resemblance (Ibid). For Boullee, “volumetric harmony” was synonymous with a given geometrical object’s shape and form (Ibid).\(^{145}\)

Just as with Second Life’s artists, architects seemed drawn into the simulated nature of their built environment and debated over the thin boundary between representation and abstraction in an artificially mediated world. For example, Boullee wondered aloud whether “architecture is merely fantastic art belonging to the realm of pure invention or are its principles derived from nature?” (Boulle 1793 in Rosenau 1953:85).

Long before the Modernist paradigm officially took hold in architecture’s discourse, the Neoclassicists – experiencing an aesthetic hangover from the excesses of the Baroque period - saw the role of ornament (decoration) as being subservient to the built surfaces of the main building site. Decoration at this time was left to Landscape Architects such as Robert Morris I.\(^{146}\) In fact, Morris was the first such Landscape Architect to treat the “site of the building” as its “most significant determinant of architectural form” – which for him, involved both the “dress” (i.e. an anthropomorphic analogy) and “decoration” (Leatherbarrow 1985:48). Morris, anticipating the idea of “site specificity” and “narrative functionality” by two centuries, understood that decoration would elevate it from its hermetic geometrical austerity (i.e. modernist affordances) by providing an architectural site with “character” (Morris 1742 in Leatherbarrow 1985:49-50).
With the advent of the Modern age, architects would temporarily ignore the set and setting (i.e. “character”) of the surrounding environment and focus on a building’s material properties and its related structural affordances. During the height of the Industrial Revolution, entrepreneurs could finally fabricate artificially durable materials at a cost-effective price. For example, Joseph Paxton – the inventor of the greenhouse - built an entire “Crystal Palace” made out of glass and cast-iron for London’s Great Exhibition of 1851. As with most architects and engineers, Paxton’s first priorities were functional and not aesthetic\footnote{147}. Paxton, embodying the shrewd pragmatism characteristic of a “Victorian Modernist”, preferred glass for its “impermeable transparent surface” and its functional ability to “retain heat” so as to deny “existing climatic conditions” (Ursoy 2007:240). Victorian Modernists used cast-iron to ensure that larger glass panels allowed for more light penetration (Ibid 239-240).

By the turn of the century, steel had replaced cast-iron as the most durable and affordable material. Inspired by Paxton’s structural feats with glass and cast-iron, the Bauhaus movement in Germany – spearheaded by Mies Van der Rohe and Walther Gropius – ushered in a brand new Modernist aesthetic using exposed concrete (or brick), glass and steel. Inspired by De Stijl’s architectural projects undertaken primarily by Theo van Doesberg\footnote{148} (Padovan 2002:x), Van der Rohe, “has evolved his ideas from the basic principles of construction; hence the form of his buildings is the expression of their structure. [...]” (Blaser 1997:10). Working in parallel with the development of the (First) Chicago School’s skyscraper designs, Van der Rohe insisted that all of the building materials should expose their structural supports. These structural Modernists focused on a building’s vertical elevation as a visual metaphor for expressing the durability of the fabricated steel-column infrastructure (Haag Bletter 1987:112). Furthermore, it was through treating every element – even the furniture\footnote{149} - as an extension of the exposed architectural gestalt that van der Rohe visually expressed his taste for visual simplicity and demonstrated his craftsmanship. Unwittingly, these vertical skyscrapers emphasized a figural and anthropomorphic interpretation. Once again, the most austere and abstract forms were subject to “characterization”.

\noindent 50
The architect who was able to reconcile the similar paradigms of Neoclassicism and Modernism was Louis Kahn. In sympathy with the Neoclassical Landscape Architects characterization of site and decoration, Kahn viewed architectural materials as a building’s “innate characteristics” (Kahn & Twombley 2003:10). Mirroring the sensibilities of Morris I, Kahn included site-related materials such as colour, water, light and “nature” as part of his building’s overall Modernist identity (Ibid). Kahn believed that “enclosed space [...] not the enclosure itself, was architecture’s essence” (Ibid:11).

Kahn’s figure-ground relationship thereby blurs into a site-specific gestalt. As a true Modernist, Kahn did not retroactively “dress” his pre-fabricated architecture but chose instead to expand the reach of his exposed materials out into the surrounding landscape. Although anthropomorphism was not as apparent with Kahn as it was with Van der Rohe, the architect Le Corbusier explored the average scale (male) humanoid form as a reference point for his ideas about modular construction. With “Le Modulor”, Le Corbusier used a generic male humanoid outline as the basic unit of architectural measurement\textsuperscript{151}. Therefore, Le Corbusier’s pre-occupation with the anthropomorphic figure helps define architecture’s medium-specific affordances as a “lived space”. Le Corbusier is one of the first Modernists to consider navigational functionality. Such affordances are useful when considering the humanoid-centric proportional aspects of avatar design in Second Life – especially as it relates to navigational functionality. With all of these architectural examples, “characterization” and “anthropomorphism” seems to be the unintended outcomes from the structural integrity of their designs – even when the raw building materials are explicitly exposed. Most people however, most closely associate “characterization” with actors working within the related “medium” of performance and theatre.

3.2.4 Performance/Theatre

“...The presence of literalist art, which Greenberg was the first to analyze, is basically a theatrical effect or quality – a kind of stage presence”

Before 2007, “real” artists viewed Second Life as an opportunistic venue for remediations of static visual art (i.e. painting and sculpture – See Dena 2006). In recent years, however, Second Life’s avatar interactions - “artistic” or not - have been lauded by critics as the new “performance art”\(^{152}\). Perhaps with the need to compare Second Life to video games, users view avatar socialization as “role-play” and treat the events – even mundane ones - as “theatre”. In fact, even the remediated visual artworks are starting be seen as casual props for a theatrical situation. It is precisely because of this constant comparison between all of Second Life’s aesthetic expressions with “theatre” that a brief discussion of Modernism in Theatre is required. The urgency to clarify Theatre’s historical affordances is made clear by the fact that this “autonomous” medium, was debased\(^{153}\) by the Late Modernists as a lesser and subordinate art\(^{154}\). For example, Fried went as far as accusing theLiteralists artists of creating a “new genre of theatre” which for him, amounted to nothing less than the “negation of art” (Fried 1967 in Fried 1990:153). Among the first Modernists to explore Theatre’s affordances in a self-conscious manner was Berthold Brecht.

Theatre, already a medium self-conscious of its explicit diegetic and mimetic expression modes, sought to distance itself from “reality” by immersing the viewer in dramatized literary (historical or mythological) situations. Brecht, however advocated a “non-illusionistic” theatre, “in which for example the stage lighting would be visible to the audience, in which the actors would not identity with the characters they play but rather would show them forth, and in which temporality itself would be presented in a new way” (Ibid:172). This ultra-hypermediated experience, compelled the viewer to see the direct relationship between “real” and “fictional” events in a theatricalised (i.e. dramatic) setting. Brecht saw theatre as an augmentation of the mediated conditions of “reality” and not an escape from it. Just as in Second Life, the author – rather than the “actor” - became synonymous with the character. With real-time interaction and improvisation as key components of Brechtian theatre, “acting” was closer to “role-play” than ever before.
Going beyond human-based role-play was the idea that Literalist art-objects from other media could be treated as “characters’ or “props” in a dramatic situation. In 1960, Morris (II) produced a semi-Brechtian theatrical performance where he hid behind an unadorned white column and eventually tipped it over towards the audience after letting it stand motionless for a few minutes. This performance reduced the audience’s theatrical encounter with an abstract presence to its barest essentials.\(^{155}\) Despite the novelty of seeing a mute minimalist art-object fall towards the audience, the audience had little say in how they could the manually resist the gravity of the sculptural materials – against the will of the performer. One aspect of Second Life that takes theatricality to the next level is the audience’s interactive sense of direct social impact on an environmental situation known as “agency” (Murray 1997). Murray is quite clear in the ways in which a virtual world like Second Life goes further than a traditional theatrical situation.\(^{156}\) The next chapter deals with artworks produced in virtual worlds that were explicitly designed with interactivity, and agency in mind.

### 3.3 Virtual Worlds

Virtual Worlds are almost as numerous as video games. The diversity of artistic expression in each of these worlds – especially in Second Life - has surpassed that of any single art-historian’s knowledge base. In the age of social media, new art movements and exhibitions are literally making themselves known every week. Therefore, this independent sub-chapter will only focus on one representative example from Active Worlds\(^{157}\) and a few examples from Second Life. These examples deal directly with modernist issues. In virtual worlds, these issues constantly oscillate between immediacy, remediation and hypermediation (Bolter & Grusin 1999). Furthermore, the emergence of a recent Modernist Virtual Worlds dialectic reconciles a world’s metaphysical attributes (Heim 2000-2004) with its semi-real (or virtually “real”) functionality as an exhibition venue\(^{158}\) (Dena 2006).
Tobey Crockett’s “TCWF” in Active Worlds (Eduverse, 2000-2007) is an early example of an artwork that synthesizes this Virtual World’s dialectic. Crockett reveals that her avatar, the textured objects and the pure white space all form part of a larger virtualized “self-portrait” [Figure 5]. In this case, her pink avatar and her floating geometrical objects become distinct figures from the plain white background. Far from the clear gestalt a viewer gets when viewing someone else’s portrait; Crockett intentionally (hyper)-mediates her self-representation through the dualistic affordances of Active World’s proprietary GUI. Conforming to Active Worlds’ integrated juxtaposition of a 3D world-browser window with a 2D web-browser window, Crockett creates a visual dialog between her self’s abstract and representational aspects. Attracted to the elegant simplicity of this dual-window platform, Crockett is consciously aware of the treatment of Active Worlds both as a metaphysical and functional virtual space. In fact, Crockett seems to explore this abstract/representational duality within every single component of her world’s design.


To begin with, Crockett’s “avatar” figure is unadorned and monochrome. However, her avatar’s form does have a clearly humanoid and gendered outline. In fact,
Crockett seems open to the idea that her “avatar” can also have a dual-nature by switching genders. This gender-transformation is done through the swapping of tiny geometrical objects165 (i.e. “prims” in Second Life) [Ibid]. With either selected gender, the avatar only displays gestures when the user is no longer navigating the space. Again, this suggests a duality between gesture (as ornament) and navigation (as functionality).

Beyond the obvious avatar figure, the viewer navigates through this symbolic duality in additional ways.166 For example, the white-space in the 3D window contains representational shapes that have been photo or video textured.167 However, some of the other shapes in the 3D window are simply rendered as plainly coloured and texture-less forms. These completely abstract shapes serve to visually articulate the emptiness of the white-space and also act a counter-balance to the representational content. These objects – both representational and abstract – are “portals” that trigger thematically associated content in the neighboring 2D web-browser when “physically” activated by the avatar. Once an avatar walks over (or into) a portal, the visual content on the right (2D) browser window is both representational and abstract – depending on the type of portal activated. For example, one portal will activate a landscape image or a webpage168 whereas some portals will trigger a pure colour-field abstraction169.

Surprisingly, Crockett has revealed her own personal narrative associations with both the white background and the small black “holes” (portals) that litter the floor area. For Crockett, the white-field and the “black holes” resemble a well known scene from the Beatles’ “Yellow Submarine” movie called the “Nowhere Man” (song 1965, film sequence 1968)170. Crockett’s dualism, then, leads to a structural synthesis between abstraction and narrative functionality. As a symbolic self-portrait, Crockett’s work personifies the entire Modernist dialectic through “characterization”.171 Unlike Crockett’s structural reinforcement of a metaphysical/functional binary, however, the Second Life artist Selavy Oh172 has created an installation that subverts the navigational functionality of the virtual space.
With “her” work, “the pseudo-giants” (2009) [Figure 6], Oh thwarts a user’s conventional expectations of virtualized Cartesian space. According to Oh, the pseudo-giants “are based on a freely available avatar model, the noob” (Oh 2009). The female and male “noob” template is the default avatar for new users in Second Life. With Oh’s interactive piece, these enlarged “noob” avatars actually shrink (recede) “when approached by an avatar [user], thus contradicting the normal laws of perspective” (Ibid). This piece embodies Oh’s Modernist attitude towards treating virtual worlds as its own medium. According to Oh’s Modernist perspective, these avatar presences actually invert the agency back to the navigating user (spectator). As a result, the “spectator acts as [a] participant in art that uses VWs [Virtual Worlds] as a medium” (Ibid). Furthermore, Oh considers the “space of a VW [Virtual World]” as “a representation of” a “three-dimensional […] social space”. This perception also “does not imply that artistic practice using a VW [Virtual World] resembled artistic practice in the physical world” (Ibid). Whereas, “pseudo-giants” deals with Modernist issues of scale and spatial perception, Oh has another work that addresses the selection-metaphor (Manovich 1995) inherent in an avatar’s representational design.
Titled “Identity Absent” (2010) [Ibid], Oh created a gender-switchable humanoid “script driven avatar...[...] that continuously switches its appearance between the 16 default appearances supplied by Linden Labs”\(^{176}\) Comparable with Crockett’s work in Active Worlds, Oh’s “avatar” stands beside a nearby webpage-browser surface that resembles a performing stage. Essentially, this stage contains embedded web-crawler code and performs an automated google search for the name-tag of the nearest avatar in closest proximity to this in-world web page. Once a new avatar user approaches “Identity Absent”, the web-stage displays webpage results that reference the avatar user’s name. However, these are generic google results and might not even relate to the avatar user’s visual design or persona. Therefore in a self-conscious manner, “Identity Absent” reminds users of their continued reliance on generic template-selection processes for their representational identity construction.\(^{177}\) On the subject of avatar identity construction; Oh’s artistic colleague in Second Life, Mosmax Hax (aka. Max Moswitzer in “RL”)\(^{178}\) has created a meta-avatar system of modular monochrome (i.e. entirely white) automated-avatars (agents) that assume a generic and unadorned male humanoid form.


(L) – Hax’s avatar with a minor accumulation of objects  
(R) – Hax’s avatar with a mass accumulation of inventory objects. The avatar’s humanoid core form is no longer visible in this iteration. Permission granted by the Author.
Known as “Whitenoise NPC” [Figure 7] (2009), Hax has programmed several avatars to automatically accumulate and “wear” additional default (“freebie”) avatars and objects from each programmed avatar’s default inventory. Striving for a gestalt visual perception, Hax de-personified the core avatars’ humanoid form by removing all template textures and by re-colouring all of these accumulated items (i.e. avatars and objects) completely white. Hax likely made these compositional decisions for three reasons.

One reason for this homogenization of colour and texture was to achieve a formal balance between the minimalist simplicity of the colour scheme with the maximalist complexity of the structural (modular) accumulation of components. Another reason was to ensure that any visual autonomy of the humanoid figure was occluded for the purpose of avatar/object/environment equivalency. This way, Hax’s artwork could be perceived as an avatar system rather than as a singular entity. Thirdly, this de-textured visual homogeneity allowed Hax to easily export this low-bandwidth artwork into other Virtual Worlds while still retaining a distinct authorial style. Consequently, Hax’s unified aesthetic sensibility has transcended the application-specific affordances of Second Life. This aesthetic transcendence addresses both the metaphysical and functional potentialities of avatar design. Hax’s avatar-ecology is metaphysical in that his artwork blurs the lines between avatar, object, architecture and even “world”. Conversely, Hax’s piece is also functional in that he designed it for exporting across low-bandwidth platforms. Hax has also mirrored Oh’s “Identity Absent” avatar in that he exclusively chose templates that emphasize the default avatar/object selection-processes179 (Manovich 1995:5). Unlike Oh, Hax’s decision to display avatar templates is more than conceptual and symbolic. For Hax, this reliance on templates for avatar design allows him to create very similar looking artefacts in most other virtual worlds. This is because most other worlds rely also on template-selection and modification for editing an avatar’s appearance. The next example in Second Life does not directly deal with avatar design – nor with templates in general -
but does address a Modernist pre-occupation with a Virtual World’s essential abstract forms.

Dancoyote Antonelli (aka. DC Spensley in “RL”) is an artist in Second Life known for starting the “Hyperformalist” movement. Hyperformalism is a Modernist paradigm in Second Life that is “neither anthropomorphic nor representational” (McCaw & Spensley 2006). As a self-conscious Hyperformalist, Antonelli generates “abstract, often spatially unique artworks with software tools”. Antonelli chooses to use Second Life’s in-world tools rather than relying on external software. Antonelli prefers to create “rearrangement[s] of photons” that illuminate “worlds of form, shape, colour and space” (Ibid). For Antonelli, his swirling patterns of light particles and abstract texture-maps do not contain any visually recognizable content since he is expressing a spatial reality that “has no analog (equivalent) in the physical world” (Ibid). Similarly, Antonelli has no intention of conflating the “Hyperformal” with the “Hyperreal”. In this sense, Antonelli is expressing Second Life’s highly abstract and metaphysical properties. The only “function” of Antonelli’s Hyperformalist artwork is to provide the user with pure aesthetic gratification. In many instances, Antonelli – with his troupe of “Zero-G Skydancers” hosts official “performances” of his playful abstractions in front of a relatively passive audience. Since Antonelli insists that the viewers of his performances passively watch and appreciate the aesthetically pleasing aspects of abstraction – for their own sake - it is apparent that he believes that his audience should become absorbed in the immediacy of his theatrical experience.

Seen in this light, Antonelli’s work - when expressed as a “dance” performance – takes on a subordinate function to the avatar performers and the abstraction then, becomes ultimately decorative. For example, his dazzling customized particle animations resemble real-world “fireworks”. Furthermore, the fact that his Skydancers wear and activate some of this visual phenomena at these events, indicates an unavoidable association to these forms as merely being “avatar accessories”. Having said this, Antonelli’s known Hyperformalist artefacts and events have not directly dealt with avatar design. However, Hyperformalists certainly have created aesthetic
situations that have addressed the Modernist aspects of other components in a virtual world.

All of these Modernist examples — from painting to Virtual Worlds — led to some informed assumptions about the kinds of avatar designs participants were likely to produce during the Case Study. These assumptions included concerns with: asocial and abstract visual relationships, fluency with medium specific concepts, self-critical design awareness, a correct visual interpretation of the Avatar Design Framework (See Chapter 5) and a rejection of conventional narrative outcomes.
4. THESIS HYPOTHESIS

4.1 Context of Hypothesis

The decision to expand basic research questions into aesthetic assumptions was inspired by Kristine Nowak’s six-part hypothesis about the social benefits of anthropomorphism for avatar design. In short, Nowak had initially assumed that anthropomorphic avatar designs would be rated as more socially attractive, credible, and trustworthy than less anthropomorphic avatars and agents (Nowak 2004:9). According to Nowak’s research findings, however, the participants found the non-anthropomorphic avatars to be more attractive and trustworthy than their humanoid counterpoints. Based on Nowak’s unanticipated conclusions, the researcher had a restored faith in the possibility that the participants of this thesis would be equally sympathetic towards making abstract, androgynous, and/or non-anthropomorphic avatars – given the freedom and time to do so. Furthermore, if Nowak’s research surprisingly identified androgynous non-anthropomorphic avatars as generally being more socially attractive, would completely abstract avatars in Second Life be seen as socially functional as well as aesthetic? Would participants intuitively gravitate towards “socially attractive” abstract avatar designs when considering Second Life’s uniqueness as a “medium”?

This thesis research was also rooted in historical assumptions that the participants and some readers would consider Modernist design principles – in any medium – to be reliable, understandable, translatable and aesthetically desirable. Abstract avatars were assumed to be specific to the fundamental cultural and aesthetic properties of Second Life. The researcher had also assumed that the participants – who were selected for their critical thinking and design skills - would temporarily place their
trust in a Modernist sensibility and produce avatars that appeared abstract (or at the very least, non-anthropomorphic). The reason for these assumptions stemmed from the fact that Modernism - as a paradigm – encouraged an ontological distance from popular society (i.e. mass culture) and fostered a platonic culture that dealt with “pure” aesthetic relationships. The researcher ultimately assumed that the participants would produce research findings similar to Nowak. However, the participants subverted the Neo-Modernist hypothesis’ original assumptions (see Chapter 8).

4.2 Initial Hypothesis Assumptions

These assumptions addressed Greenberg’s rejection of narrative-content with other media and included a concern with abstract visual relationships, a fluency with medium-specific concepts, a self-critical awareness, and an intuitive understanding of the researcher’s distilled avatar design framework (See Chapter 5). Such assumptions were based on an art practice that was “preoccupied with its own process and means, with its own identity and distinction” as well as its “own unique statement, […] conscious of its own evolution and history […]” (Reinhardt 1962 in Harrison and Wood [Ed.] 1992:805).

4.2.1 A fundamental concern with asocial and abstract visual relationships

The first assumption was that mature Modernist avatar designers would create their avatars with primarily its visual appearance (including optical phenomena) in mind. This visual-centric pre-occupation mirrored the Modernists’ reductive attitude towards extra-structural “content” (such as “narrative” and “history”) in other visual media. With visual disciplines in general, the medium-specific Modernist discourse focused almost exclusively on that which was merely visually pleasing and/or contemplative. For example, Clement Greenberg believed that there was a “growing relaxation of esthetic standards at the top of Western society” which threatened to undermine the “serious practice of art and literature” (Greenberg 1971:1. Underlining by the Thesis Author). By invoking the words “esthetic standards” (sic), Greenberg had conjured a longstanding
historical tradition that dealt with the contemplation of visual forms. At the root of this foreseen aesthetic crisis was the idea that a solitary concentration on visual design principles would eventually be diluted over time in favour of peer-reviewed social “discourse” (Ibid).

This thesis originally collected data based on the Greenbergian assumption that socialization (through a critical “discourse”) was not an essential visual property of Second Life’s “medium”. In fact, when Greenberg had analyzed traditional media with the same critical lens, he focused exclusively on the artefact rather than the social relations that may have influenced its creation. Greenberg and similar Modernist critics (as well as some artists) intentionally overlooked the gestalt production realities that lay behind both painting and sculpture for the sake of asocial visual contemplation.

For Mondrian, an expressive “relationship” in a work of plastic art – especially painting – was not a social one but revolved around the visual “oppositions of color and line” (Mondrian 1919 in Braziller 1995:21). Indeed, both Mondrian and Greenberg would treat the social biography (including social “relationships”) behind the artwork’s creation as unimportant “background” information and would focus only on the abstract visual properties of the finished artefact. The kinds of visually-evident properties that Greenberg would reliably critique are: materials (i.e. hardware, light, stone, wood, paint, glass, oil, acrylic etc), presentation (i.e. picture frame, canvas, relationship to site etc) and technique (i.e. level of virtuosity and sensitivity to the materials’ exposure and presentation).

Despite the fact that Second Life is a socially driven virtual world, the researcher expected that the participants – when role-playing as Modernists – would also focus exclusively on their designed avatars’ visual form rather than explicitly address any sort of social functionality and/or external narrative associations behind their creations (Chapter 4.2.4).

Prior to this research, some artists from Odyssey Island’s community have already provided evidence suggesting that occasionally, Second Life avatars are
created to function solely on visual aesthetic relationships and solitary exploration activities – devoid of any discursive community presence.

For example, the artist Alan Sondheim (Alan Dojoji in SL), created an avatar called “Julu Twine” (2009) [Figure 8]. Unlike most avatars in Second Life, Sondheim did not design Twine with any sort of social engagement in mind. On the contrary, Twine existed as a visual experiment to be experienced by (primarily) the artist and documented as an embodied “punctum for camera and movement” (Sondheim, 2009). Twine’s avatar was a formal experiment to explore the degrees to which its core figure (i.e. humanoid shape and outline) could blend in with its surrounding environment (Chapter 5.3.2) as a gestalt avatar configuration. Beyond the obvious humanoid shape of Twine’s core avatar, Sondheim sought to avoid human “associations” with this hybrid gestalt form (Ibid).
In addition to creating avatars without “human associations” explicitly in mind, Second Life also encourages a solitary exploration of the user-generated landscape. Based on the properties of virtual worlds as discussed in Chapter 1, discovering and nurturing social relationships are only a part of the user’s default experience within Second Life and not at all a functional imperative. In Second Life, users are also encouraged to explore a highly encyclopaedic (Murray 1997) and persistent environment on their own – without other users needing to be present. Because Second Life was designed to be a persistent world with the option (not the imperative) for social interaction, avatar artists such as Scott Kildall simply “…enjoy the empty spaces […]” (Kildall quoted in Rackham & Mccrea in Doesinger, 2008:152). Fulfilling the personality criteria for Bartle’s “Explorer” archetype (Bartle 2006), Kildall located an equal amount of aesthetic pleasure within the uninhabited zones of Second Life since the visual “[...] structures...” still “…remain intact” (Ibid). Echoing Second Life’s accommodation towards pure visual exploration, he confirmed that, “you can go into most places, but you don’t have to socialize” (Ibid). According to Kildall, what initially drew him to create art in Second Life had nothing to do with desires for social interactivity. On the contrary, “for the first 3 or 4 months”, Kildall had “no friends” and would “walk around and explore” (Ibid).

It is because of examples like these that led the researcher to hypothesize that an avatar designer would not always be required to design an avatar or even navigate a space with others in mind. Fundamentally, the initial hypothesis claimed that the designer’s essential “materials” would only involve the most abstract “relational” properties such as the contrasts between light, sound, form and time (motion). For Mondrian, these abstract properties expressed the most essential platonic “relationships” because “the more the natural is abstracted, the more pronounced is the expression of relationship” (Mondrian 1919 in Braziller 1995:21). If one views social interaction as being a “natural” occurrence amongst avatars in Second Life, one can then employ the means of visual abstraction to make these social relationships correspond with the virtual nature of Mondrian’s platonic reality.
4.2.2 An internalized fluency with medium-specific concepts

“If there is something in Second Life you can’t fight against, it is it’s visual side. You can play with its kitschy aesthetics, but you cannot be set free from them.”

- Domenico Quaranta - Email interview with the Thesis Author, 2010.

The second portion of this hypothesis presents an assumption that people in Second Life already have preconceived ideas as to what a “default” and “virtuosic” avatar should look like. In addition, it is expected that mature avatar designers (i.e. the participants) have spent enough time experimenting with avatar iterations in-world to know the particulars of why and how Second Life’s infrastructure affords certain avatar designs over others. This is because these aesthetic limitations are initially set into place through Second Life’s indigenous Graphical User Interface (GUI). Furthermore, the ease of use with the template sliders compels most users to create a variety of custom-stretched and re-proportioned anthropomorphic avatars. Outside of this process, the only other ways in which artists can stretch the affordances of the medium without relying on external software applications is through skilful use of the in-world “build” button translation tools. For many, re-stretching bodies, re-colouring and selecting between template parts constitutes the bulk of the iteration process. Many of Second Life’s prominent artists and critics champion this protean continuous iteration/mutation of avatar forms. Even amongst this elite demographic, artists iterate avatars through a self-conscious subversion from Second Life’s template sliders and introductory inventory library.

Ideally, Modernist avatar designers should also have enough art-historical knowledge to know which avatar designs more closely resemble Second Life’s distinct aesthetic character over similar avatar outcomes that exist in other virtual worlds. In many instances, these designers have “real-life” backgrounds in visual design including architecture and other plastic arts. With this variability in mind, advanced avatar designers have come to know over time very particular aesthetic (and infrastructural) limitations of designing a “unique” avatar in Second Life. For example, designers usually
experiment with these limitations in “sandboxes”. Sandboxes are playful environments where the whole point is to iterate designs (avatars, architecture, objects) without any pre-conceived aesthetic limit. From spending many hours at a time in sandboxes, mature avatar designers should know exactly how Second Life – as compared with other user-generated worlds – structurally restricts their creative freedom. Since the culturally accepted activity of designing avatars occurs in real-time for all other avatars to witness, dynamic visualizations of the iterative design process itself appears to be a medium-appropriate aesthetic. Furthermore, avatar design blogs and other semi-academic articles have already conducted prolonged research into Modernism and medium-specificity. In these user-generated reviews, avatar designers frequently discuss the ways in which Second Life’s interface directly and indirectly affects its indigenous visual culture.

4.2.3 A Modernist Self-critical awareness while designing avatars

“The essence of Modernism lies [...] in the use of characteristic methods of a discipline to criticize the discipline itself, not in order to subvert it but in order to entrench it more firmly in its area of competence”

– Clement Greenberg, “Modernist Painting” (1960) (Greenberg 1960:1)

There is an assumption that the participants have had the necessary academic (or equivalent) training to consider their avatars’ design(s) in an “objective” and “self-critical” manner throughout the case study. Self-criticality is important since the avatars are usually designed to function as virtualized expressions of a fictional, idealized or illusory self. Whereas most users in Second Life are only self-conscious of their avatars’ appearance due to personal issues relating to self-confidence and narcissism; “Modernist” designers and artists are expected to pay closer attention to abstract formalistic details such as: line, form, colour, shape, and aesthetic functionality. Even if
these Modernist pre-occupations are role-played rather than genuine, the goal of thinking about avatar design in this manner is to “firmly entrench” the discipline of avatar design within its assumed “area of competence”. According to Quaranta, if one was to role-play Greenberg for the purpose of this study, the participant would also consider “code” and the narrative aspects of “theatre” to be an intrinsic part of this entrenched discipline (Quaranta 2010). However, if Quaranta was role-playing merely a “parody” of Greenberg, he may resort to re-enacting stereotypical comments previously made by the critic about the visual outcomes of avatar design(s) being “not flat enough” and not “privileging the flatness of the screen” (Thesis Author’s content, Ibid 2010). Furthermore, Quaranta has pointed out that “Greenberg was also one of the harsher enemies of kitsch and pop culture” (Ibid). As a result, the researcher expected the participants to be historically self-conscious of the fact that in the Modernist era, “kitsch was the opposite of the avant-garde, and was part of the cultural strategy of a totalitarian regime” (Ibid). Ideally, the participants – when role-playing as Modernist artists in the focus group session - were expected to disregard designed avatars that contained overt pop-culture references and other agreed-upon forms of “kitsch”.

Even outside of academia, it appears as though users in Second Life contemplate their avatars through self-critical filters. According to Dena, “people are able to observe each other interact in Second Life and able to observe each other in the second-order art works that are created to communicate highly personalized artworks” (Dena in Rackham & Mccrea/ Doesinger 2008:149. Underlining by the Thesis Author). Outside of the academic discourse, commercial designers in Second Life usually dwell on “the insight that all things exist in virtual words to fulfil [SIC] a psychological or social purpose” (Heffernan 2010). This contemplation of “second-order art works” through “personalized artworks” often creates an “interesting vantage point from which architecture, fashion and art can be analyzed and evolved” (Ibid). It is for this reason that the researcher expected the participants to relate some conversations to the
theme of social functionality, providing that their approach acknowledged self-criticality.

At any rate, the researcher understood that social factors would inadvertently influence the creation of highly abstract avatars to at least a nominal degree. With these expectations for self-reflexivity in mind, the researcher was tacitly aware and mindful during the entire case study session that “[...] there is a danger in having a critical aesthetic for an art in that it can take the edge off it, making it self-conscious” (Bartle 2004:630). The researcher hoped that this assumption would not contaminate a rigorous analysis of the avatar outcomes produced by the participants. Although this is outside of the Modernist discourse, in a highly plastic Post-Modern virtual world like Second Life it is crucial to always keep in mind that “the more an art form is deconstructed, the less it means as a whole” (Ibid). Essentially, the participants were expected to undergo this “task of self-criticism” in order to “eliminate from the specific effects of each art any and every effect that might conceivably be borrowed from or by the medium of any other art” (Greenberg 1960:2). From this self-conscious compartmentalization of forms and processes, the Researcher expected to see avatar outcomes where Modernist “purity” and “self-definition” would be visually apparent.

4.2.4 A complete translatability of the entire Avatar Design Framework revealed in the Avatar design outcomes…

With this assumption, the Researcher expected that the bulk of the avatars created by the participants would visually express – in an explicit way – the Modernist Avatar Design Analytical Framework as outlined in parameterized detail in Chapter 5. As mentioned earlier, the Researcher expected that both casual users and mature designers in Second Life would already have preconceived culturally conditioned ideas about an avatar’s default and/or template-enabled appearance. Within the arts community that champions the protean continuous iteration/mutation of avatar forms, however, avatar designers might not agree on any single appearance category – outside
of the default condition – that can be distinguished as belonging either to Second Life’s unique design infrastructure and/or to Modernism’s generalized visual characteristics.

**FIGURE 9.** September, 2009. The Thesis-Author’s male “noob” avatar conducting research at the Skybox on Odyssey Island, Second Life. Screenshot taken by the Thesis-Author.

At the time of this hypothesis’ formation, it was unclear as to whether the participants would resort to hyped stereotypes about what the most “essential” avatar designs would look like. For example, the participants may disagree on whether an avatar composed from a single “prim” or the “noob” avatar [*Figure 9*] constitutes the most basic starting point for avatar appearance editing within Second Life. Likewise, there was uncertainty as to whether participants would be able to interpret medium specificity outside of its culturally conditioned expectations of its appearance from history. As an example, would the participants create hyper-minimalist avatars simply because the medium-specific designs in other media were for the most part, purely minimalistic? Would these avatars outcomes resemble unadorned humanoid figures or white-boxes with anthropomorphic outlines? With the dominant paradigm of Post-Modernism in mind, the Researcher was also prepared to see some avatar outcomes that were little more than remediated visual parodies of Masterworks from the Minimalist era of the 1960s and 1970s.
Despite the initial uncertainty, there was an assumption that the participants will be able to express aesthetic variety, mutability and diversity within Second Life as intellectually revealed through the parameters in the Avatar Design Framework. Other than the visual aspects of these aesthetic parameters, the purpose of implementing such a framework was to reduce the role of explicit “narrative content” as much as possible considering that Second Life lends itself easily to user-generated story-world creation and emergent “characterization” of designed avatars.

4.2.5 A Rejection of Conventional “Narrative” Readings in Favour of Non-sequential Visual Contemplation

In addition to the assumptions that the participants would intuitively incorporate Modernist tenets while designing their avatars, the researcher hoped that participants would not explicitly design avatars with “narrative” functionality in mind. Although the noted film scholars Bordwell and Thompson have broadly defined “narrative” to mean “[...] a chain of events in the cause-effect relationship occurring in time and space” (Bordwell and Thompson 1997:90), Modernist Art critics seem to attribute “narrative content” more to the diegetic and mimetic modes of recounting/recollecting/depicting interpreted events (based on Bordwell and Thompson 1997:92). Modernist Critics of this sort favoured the “literalness” of the art object actually being present as an autonomous entity rather than considering said object as a residual artefact of diegetic or mimetic depiction. For Modernists, the aim was to embrace the “rejection of narrative or sequential reading” while prioritizing the “relationships among the parts” (i.e. “theme and variations”) in its place (Paccione 1989:1). Furthermore, Modernists tolerated sequentially transforming art-works providing that all of these transformations were structural and nothing more than temporal aspects of the overall gestalt form. Since the “priority was given to the whole over the parts” (Ibid), any parts relating to “content” had to be subordinated to the constraints provided by that particular medium. Likewise, to mirror Marshall McLuhan’s famous statement “[...] the medium is the message [...]”, (McLuhan 1964:7) is to say that no other diegetic and/or mimetic
messages external to the medium (i.e. content) need be present for the art object to be aesthetically relevant. Therefore, when even the most abstract “non-narrative” forms deal with telling or showing a subject in retrospect (Bordwell & Thompson 1997:128); forms that are only concerned with structural “themes and variations” do not necessarily evoke narrative content\(^{193}\) – even if these permutations superficially resemble a causal sequence of events in time\(^{194}\) and space (Bordwell & Thompson 1997:146).

During the case study, the researcher was expecting the participants (role-playing as Modernists) to consciously filter out from their avatars any “narrative content” related to their (auto)-biography, external fictional and non-fictional story-world sources, plot functionality\(^{195}\), didactic materials and symbolic representation. During the focus group, the researcher also urged the participants to reconsider any other diegetic and/or mimetic interpretations that would require additional explanation beyond their designed avatar’s visual construction. When considering an avatar’s abstract form for its own sake, the researcher felt is was crucial that as a focus group, “we do not look for causally linked events that make up a narrative or for propositional claims that make up an argument” (Bordwell & Thompson 1997:146). Having said this, the researcher had to tacitly acknowledge that “usually, the agents of cause and effect are characters” (Bordwell & Thompson 1997:93. Underlining by the Thesis Author). Therefore, the researcher felt that of all of the aforementioned assumptions, this one was the softest. Not surprisingly, the participants ended up being eager to direct the eventual research findings towards a consensus interpretation of avatars as “characters” (Chapter 9). Regardless, all of these assumptions provided the catalyst for analyzing the participants’ avatar outcomes through the Avatar Design Analytical Framework’s six formal parameters.
5 AVATAR DESIGN ANALYTICAL FRAMEWORK

5.1 General Explanation

Based on initial assumptions about Neo-Modernist avatar design procedures and outcomes in Second Life, the Author developed and implemented a scalable analytical framework for use in both case study sessions. This framework converted three decades worth of Greenberg’s collected Modernist critiques into six observable parameters for analysis and discussion. These parameters became a qualitative measurement tool that would represent a practical distillation of Neo-Greenbergian principles. Moreover, these parameters guided the entire research process.

5.1.1 Purpose for using this measurement tool

For the sake of academic expediency and utility, these parameters were categorized into binary opposites. The need to simplify the convoluted Greenbergian prose into easily digestible aesthetic polarities arose from three research aims. The first aim was to describe Greenberg’s Modernist ideas unambiguously. That is to say, the participants and the reader(s) would clearly understand the ways in which the researcher analyzed the avatar artefacts. In the spirit of Modernism, the second aim was to ensure that the researcher systematized avatar outcomes with academic rigour. The final aim was to gain a higher-level understanding of the utility of Greenberg’s perspective when applied to the avatars’ visual design in virtual worlds. By understanding Greenberg’s ideas in light of both their essentialist and utilitarian meanings, this research spells out an identifiable hierarchy of knowledge relating to artefact specificity within Second Life’s particular “medium”.

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5.1.2 Disclaimer: About the Binary Organization

The reason for subdividing these six parameters in a binary fashion was not to suggest a dogmatic concern with dualistic absolutes. Instead, these polarities allowed the researcher to conveniently evaluate and articulate specific designs. As this was a qualitative study, no quantitative values were used when defining the precise degree of one aesthetic polarity over another. These measurement tools were based on a qualitative interpretation of Greenberg’s critical opinions regarding other artists and media.

5.2 Level of Medium Visibility

This parameter observes the ways in which an avatar’s design visually shows or conceals evidence of Second Life’s software/hardware affordances (i.e. interface, appearance editor, screen, bandwidth etc) and distinct cultural milieu (i.e. template avatars and accessories from the “inventory” library). Essentially, this parameter measures the degree to which the participants visually demonstrate a “willing acceptance, of the limitations” of Second Life as a medium (Greenberg 1940 in Frascina 1992:66). Using Bolter and Grusin (Bolter & Grusin 1999) as the primary reference point, these two extremes – henceforth known as “immediacy” and “hypermediation” - directly relate to an avatar’s level of medium visibility.

5.2.1 Medium Invisibility - “Immediacy” (Illusionism)

One extreme called “immediacy” describes content-focused designs that lead the viewer to consider an avatar’s unique personality “characteristics” as part an imported story-world and/or the viewer’s imagination – rather than the infrastructural affordances that mediated its overall appearance (based on Bolter & Grusin 1999:24). The viewer suspends his/her disbelief (Coleridge 1817) that they are simply interacting with a graphically mediated Second Life avatar. Designed with immediacy in mind, the
viewer/interactor focuses on the avatar’s personality traits instead of the infrastructural filters and disciplinary constraints through which the avatar was mediated. This polarity corresponds to avatars that privilege content over infrastructure and express visual ambiguity as to whether they were originally designed in Second Life or an external software source (Bolter & Grusin 1999:20-21). The “immediate” avatar may even appear “hyper-real” and familiar to an external story-world (i.e. in cartoons or literature) or some other virtual world (i.e. video games).

In many cases, avatars designed in this manner showcase “blurring” (“smoothing”) effects and intentional “cartoonization” of any expressive features. Further, there would be no visible evidence of exaggerated avatar limb elongation nor would there be any recognizable ornamentation derived from Second Life’s template libraries. The reason for using these types of effects is more than stylistic. In fact, when an artist intentionally designs in this way, it is to distract the user from the avatar’s original provenance and template origins.

Spatially, an “immediate” avatar would purposefully not draw attention to the flatness and/or resolution artificially enabled by the computer monitor (Bolter & Grusin 1999:26). For example, emphasizing a character’s three-dimensional attributes will contribute towards the viewer’s immersive illusion of immediacy when they are engaging with a Second Life avatar on a two-dimensional screen-based surface. Designing an avatar that can be perceived in its entirety by the viewer without having to navigate Second Life’s special viewing controls would also enhance this immersive sense of content-driven immediacy. The less this avatar visually draws attention to Second Life’s interface, viewer’s hardware/software limitations and indigenous cultural references, the more “immediate” it appears. While the criteria for expressing pure “immediacy” in avatar design is somewhat convoluted, an avatar’s hypermediated qualities are usually more clearly defined.
5.2.2 Medium Visibility - Hypermediation

“Content is to be dissolved so completely into form that the work of art or literature cannot be reduced in whole or in part to anything not itself.”

– Clement Greenberg. “Avant Garde and Kitsch”, 1939. (Greenberg 1939:2)

Unlike immediacy, hypermediation draws the viewers’ attention towards Second Life’s interface as well as the “process or performance” (Mitchell 1994 in Bolter & Grusin 1999:31) that led to the avatar’s creation/viewing. An avatar design appears hypermediated when the viewer becomes aware of Second Life as both a fragmented “screen space” and a medium. Sometimes, Second Life’s structural limitations unintentionally cause an avatar’s design to appear hypermediated.

Among many possible examples, avatars designed to evoke hypermediated awareness from the viewer in Second Life may feature template accessories from the “freebie” libraries and/or expose the appearance editor’s template-sliders through exaggerating limbic proportions. Culturally speaking, hypermediation can also occur if the avatar design self-consciously represents another artefact from Second Life’s culture (i.e. the “noob” avatar) [Figure 9]. The researcher may detect additional hypermediation with designs that require the advanced usage of Second Life’s GUI for proper viewing (i.e. camera controls, text-chat appearance descriptions etc). For example, revealing an avatar’s wire-frame markings above the skin exposes Second Life’s grid-dependent translation tools. With this example, issues of hypermediation and functionality intertwine (Chapter 5.5.1).

An avatar’s design can appear both hypermediated and abstract if portions of the avatar’s form existed outside of its immediate visual appearance. This is because the act of viewing a world through a hypermediated filter requires an awareness of the existence of all the various heterogeneous spaces (i.e. multiple windows) that demarcate an avatar’s presence in a fragmented virtual world interface (Bolter & Grusin 1999:33). For example, part of the avatar’s identity unravels through
additional text descriptions about the avatar in a separate window, the title of its corresponding nametag or through Second Life’s in-world “camera-control” tools. When an avatar is visually revealed as a mediated entity, the viewer shatters their own suspension of disbelief towards the autonomous existence of the avatar’s personality traits (i.e. “narrative content). Therefore, the viewer no longer believes that this avatar ever existed as a character in a unified story-world and/or part of the “real” world.208

The next parameter determines how distinguishable an avatar’s figure is from its surrounding virtual environment.

5.3 Levels of Visual Autonomy

Whereas most of the other parameters discuss a general exploration of medium specificity, this parameter focuses in on the artefact directly. Therefore, these levels of visual autonomy are primarily concerned with avatar specificity. That is, this parameter examines the degree to which an avatar’s figural form is visually distinguishable from its surroundings. The more an avatar’s form (i.e. body shape and colouring) “stands out” from its environment, the more likely its “avatarness” is accentuated.

With the goal of visually separating an avatar from its environment, the tradition of Late Modernism is an appropriate starting point for reference. This is because Late Modernists were the most concerned with liberating the artefact from its aesthetic environment as a “thing in itself”. In fact, when the Late Modernists examined painting, they had keenly focused on the ways in which the figural marks were to be distinguished from both the portrayed landscape and the picture plane - i.e. the canvas (Greenberg 1941 & 1952; Hoffman 1961 et al). Similarly, Second Life uses a computer monitor screen as its “picture plane” and so these issues and techniques are directly translatable.209

According to Modernist ideals, a highly visible avatar figure – abstract or representational - would resemble a formal gestalt (i.e. what Morris called a “unitary form” – Morris 1966/67 in Harrison & Wood [Ed] 1992:816). With a more disguised
avatar form, an avatar may appear subordinate to exterior aesthetic relationships such as its visual relation with its environment. In a virtual world, this concern with visual autonomy paradoxically differs from all of the other Modernist parameters. As an extreme example, an avatar designer can even utilize non-Modernist representation (i.e. a recognizable figural form) as a convenient means to accentuate an avatar’s distinct presence from its surrounding ambience (i.e. the built virtual environment). In this rare case, the designer can subvert Modernism’s preference for abstraction by rigorously applying Late Modernism’s logical arguments for holistic artefact autonomy and specificity. According to this logic, a “thing in itself” would not visually exist if it is indistinguishable from its environment. What seemed paramount to a medium’s – or in this case artefact’s – autonomy was its ability to become “altogether itself” (Greenberg 1952:2) much in the same way that painting could be “free [...] from bas-relief” and “sculpture [...] had freed itself from architecture” (Ibid). In this isolated case, this is why some Modernist Critics would tolerate (but hardly encourage) increasingly representational modes of expression in exchange for an artefact’s structural distinctiveness. The main concern is that the designer treats the avatar’s autonomous form as a “whole” entity that is not “diluted by [...] mild contrasts and connecting parts and areas” (Judd 1965:4).

From the perspective of a Modernist Artist, the appropriate aesthetic challenge would be to design an “abstract” avatar whose structural boundaries are still clearly distinguishable from the virtual environment. Regardless of Modernist interpretations, this research analyzed avatar forms based on the degree different iterations displayed its figural (active) or occluded (passive) aspects.

5.3.1 Figural – Active

“The Black Sun is as big as a couple of football fields laid side by side. [...] Everything is matte black, which makes it a lot easier for the computer system to draw things in on top of it – no worries about filling in a complicated background. And that way all attention can be focused on the avatars, which is the way people like it.”
This polarity addresses an avatar’s visibility whose form is clearly discernable from both the virtual environment and other avatars. For example, in Stephenson’s canonical cyberpunk novel “Snow Crash” (1992), avatars gained a higher social standing in their “Metaverse” by ensuring their avatars visually stood out from the “Black Sun” nightclub’s background. In Stephenson’s story, the architect designed the background in order to foreground the avatars’ default visual presence. However, in a world like Second Life where there are a multitude of virtual spaces, designers are frequently posed with the challenge to create visually distinguishable avatars.

Upright anthropomorphic avatars with a generic humanoid scale, discernable facial features, and prominent body outlines conventionally stand out from most virtual environments in Second Life. For some Modernist designers, the computer’s screen constitutes an avatar’s overall environment. Therefore, the rectangular screen’s physical edges become the picture plane with which the avatar’s visual form and proportions are contrasted against. If this is the case, then an avatar’s scale (i.e. an avatar’s relative proportion to the screen-space) becomes a very important analytical variable for this purpose. As an example, an avatar maybe be moderately sized and spherical precisely to appear distinct from the hard-edges of the rectangular screen environment. In a social setting, avatars distinguish themselves from generic humanoid avatars through jarring colour contrasts, enhanced sexual attractiveness, a slightly exaggerated humanoid scale, and rapidly changing animations/gestures.

Regarding scale in particular, one strategy is to adjust the avatar’s size to irregular proportions and/or making their avatar look slightly less anthropomorphic. For example, many avatars have assumed the form of large dragons to stand out from a large social event while still being recognized as personified entities – even at the risk of limited navigational functionality. Having said this, even with the most abstract of optically distinct avatar forms, the nametag provided by Second Life’s interface is still a
reliable visual indicator to others of the artefact’s “avatarness”. This next polarity will explore the ways in which designers intentionally create disguised avatars that are indistinguishable form the virtual environment.

5.3.2 Occluded – Passive

“Users are not only constructed as a subject [...] they also in turn become the object.”

This direction observes the degree to which an avatar’s design blends in with its surrounding virtual environment. Avatars designed with occlusion in mind tend to appear visually indistinguishable from backgrounds (surfaces), objects, vehicles, accessories, architecture and even amongst a group of other avatars. Usually, such passive designs are a novelty but in some isolated cases, a designer can exploit an avatar’s lack of visual definition for specific ends – some of which have functional significance.

Avatars visually express an occluded relationship with the surrounding virtual environment by focusing on horizontal orientations, muted facial features, environmental colour schemes (i.e. green, blue and white), mimicking mundane “inanimate objects” (i.e. furniture, accessories, food, architecture) and/or possessing inhuman scales (i.e. equivalent to microscopic objects and macroscopic environments). In an extreme example, an invisible avatar would avoid all viewer-perception and be indistinguishable from any environment.

One common purpose for blending an avatar into its surroundings is to enhance narrative immersion by creating a unique “character”. Specifically, some avatars actually represent known fictional “characters” from literary sources – some of which resemble personified objects. For example, a designer may choose to create an avatar that represents the “Kitt 2000” car from the TV series Knight Rider [provide link to
Jeffrey Ventrella\textsuperscript{220} recollected an amusing situation in Second Life where an occluded avatar actually facilitated social functionality. According to Ventrella, Qube Linden’s avatar “was shaped like a small table and two chairs” and “upon his avatar, two other avatars could sit and have a conversation with each other” (Ventrella 2009).\textsuperscript{221} Outside of Second Life, Ventrella also recalled a similar anecdote in Adobe Atmosphere. In Atmosphere, Michael Kaplan – the world’s creator – took the form of a building that was so large, other avatars could enter the personified structure (Ibid).\textsuperscript{222}

In Digitalspace Traveler, users showcased a large array of semi-anthropomorphic avatars that could easily be mistaken for an inanimate object, when idle. For example, many Traveler users wore “hot dog” and “donut” avatars” at special events (See Turner, Mancini & Harrison’s AVATARA DVD, 2003). One way to increase avatar occlusion is by removing the facial features from these personified “inanimate” objects. Anthropomorphism only becomes an issue when the figural form (humanoid of otherwise) and facial features optically distinguishes the avatar from its surroundings. In addition to de-anthropomorphizing one’s avatar, designers also use generic environmental colour schemes to ensure that the avatar successfully blends in with its environment. For example, a texture-less and white monochromed avatar would blend in quite well with most of Second Life’s conventional gallery walls and with backgrounds where the textured content (cache) was still loading. This is because the default colour in both scenarios is also white. However, a static environmental context is crucial for an avatar’s occlusion. In fact, an avatar’s monochromatic shape may stand out if its form contrasts against any background other than an environment composed of the same colour and texture. A more obvious way to blend in with the environment is for the avatar to project the avatar’s character traits directly onto architectural configurations.\textsuperscript{223} For example, avatars in Digitalspace Traveler created spaces that visually resembled their avatars. The visual resemblances were so strong, in fact, Traveler users appeared
to symbolically merge with their homes. Therefore, some Traveler avatars became both the figure and the ground simultaneously (Dipaola & Turner 2008:6).

The artist Alan Sondheim has managed to design a single avatar in Second Life whose virtuosic form resembles a system (i.e. hive) of inter-related avatars and objects. Sondheim’s “Julu Twine” avatar [Figure 8] “exists in negative space, defined against definition” (Sondheim 2009). In other words, Sondheim’s gestalt avatar form occupies both the figure and ground in an equivalent manner. Sondheim further subverts the classical figure-ground relationship by categorizing the modular attachments that link all of Twine’s avatar body “debris” together into symbolic extensions of the humanoid figure’s augmented presence.

With presence in mind, it is worth noting that even non-figural (abstract) objects – no matter their degree of occlusion – can still have a distinct theatrical presence in a virtual space. As far as Fried is concerned, “...being distanced by such objects is not [...] entirely unlike being distanced, or crowded by the silent presence of another person” (Fried 1967 in Fried 1998:155. Underlining by the Thesis Author). Whether or not this “person” is an entity recognized by the user is unimportant but contemplating this possibility does set the tone for the next chapter that deals with “levels of visual recognisability”.

5.4 Levels of Visual Recognisability

“Sometimes an avatar is a photo, sometimes it’s a drawing; it can be based on a real person’s appearance or look nothing like them. Usually avatars are a mix of the real and the imagined. They represent an internet user”. (Jones 2006:13)

This parameter explores the types of manifestations with which a user chooses to represent him/herself in Second Life. In most cases, the user is not very adventurous in how they choose their avatar design. Partly, this has to do with the convenience of using the template sliders in the avatar appearance editor window (Chapter 1.5.2). This
convenience allows the user to create a modified humanoid form with relative ease. On a cultural level, it is also more convenient for the user to represent their “real” (or idealized) selves as faithfully as possible. This is because there “exists a general expectation that avatars should remain at least somewhat faithful to their owner’s offline appearances [...] to initiate friendships or even romantic relationships which may at some point extend to the offline world” (Book 2004:8). Since Second Life offers some users the chance to rehabilitate their social deficiencies in their “real” lives, “there is a constant tension [...] between the desire to meet standards of attractiveness versus accuracy in portraying offline bodies” (Ibid).

Avatars-as-art are not under the same cultural pressure to conform to official representations of the (biological) user. Sometimes, a user’s abstracts his/her aesthetic sense of self in Second Life from “Real Life” through idealized, stylized or completely non-representational means. Because Second Life as a plastic medium provides this ontological freedom, the “purest” form of representation in this context has to do with the visual expression of “homophily” between the user’s aesthetic preferences and avatar outcome(s) (McCroskey et al 1975; Nowak & Rauh 2005). If we merge the “perceiver” (user) and the “perceiver” (avatar) into one entity, then homophilic representations are likely to be visually apparent in the design outcome. For example, some of the user’s facial features, expressions, aesthetic tastes (i.e. color or shape preferences), and other character traits (fictionalised or not) may be figuratively or literally represented in his/her avatar design. This perceptual similarity can extend to both abstract and representational expressions of the self. In fact, avatars can personify any form or concept imagined by the user – even if such ideas are not usually associated with the user. Therefore, this parameter explores the levels of visual recognisability through visual modes of abstraction and representation.
5.4.1 Abstraction

Abstraction is the most significant polarity to examine for this thesis as it deals directly with Modernism’s appeal to design artefacts that ideally, transcend\textsuperscript{227} external narrative (i.e. diegetic and mimetic) associations.\textsuperscript{228} With the abstract mode, an avatar intentionally bears no known (i.e. obvious) resemblance to visually recognizable images, icons, forms and shapes. From the standpoint of Modernism, abstract art and design is vastly superior to representational artefacts.\textsuperscript{229} If universal visual design parameters are ever to be studied in isolation from its larger narrative “meaning”, it is through means of abstraction. With abstraction as a fundamental starting point for design, avatar creators can clearly see which forms are also aesthetically pleasing in similar virtual worlds. In fact, it is through abstraction that Modernism earned its own recognisability in the academic world – as well through some pop-culture channels. In other words, if an avatar design appears abstract to others, it will appear “Modernist” in character.\textsuperscript{230}

There are many forms available to the avatar designer for rendering a completely abstract avatar. Going beyond the temptation to design an avatar solely for “picturing or depicting” purposes (Greenberg 1970:1), an avatar’s design can use “any kind of mark, any kind of inflection of any kind of surface” (Ibid) as part of the avatar’s purely abstract composition. Abstract avatars can minimize anthropomorphic associations by generating a single non-organic polyhedron as a substitute for the “head”, “limbs” and “body” or by representing the avatar solely through light-sources. Similarly, Sondheim once encountered an abstract avatar that resembled “separated cubes” (Sondheim, 2009).\textsuperscript{231} Analytical Cubists (i.e. Picasso and Braque) oscillated their painted figures in precisely this manner. As a result, “the subject matter became largely unrecognizable” (Ibid). Another way to veer an avatar’s design towards abstraction would be to have an avatar’s “flattened” figure constantly oscillate between appearing as a “specific three-dimensional” entity and disappearing into the “illusion of depth and relief” of virtual space (Greenberg 1959:5).
For those designers completely immersed in Second Life’s virtual space, Second Life appears as qualitatively “real” as the world outside of the screen. Therefore, few users consider Second Life avatars to be merely “representational” or “imitative”. On the contrary, these immersed users would view their avatars as truly autonomous entities. With this paradigm shift in mind, designers usually prefer to emphasize an abstract avatar’s sculptural “volumetric clarity” in “three (virtual) dimensions” (Lewis 1998:1). Regardless of intentions, the outside (“real”) world views such volumetric contemplation as corresponding to borrowed “representational” elements. Second Life’s “first artist” Dancoyote Antonelli, however, considers these spatial realities to have absolutely no analogue in the physical world. Instead of making representations of physical reality, Antonelli creates a “rearrangement of photons to illuminate alternate worlds of form, shape, color and space”234. Although Antonelli’s creations are mostly objects, vehicles and environments; abstract avatars can also be designed using little more than light particles.

Perhaps the most expedient way for an avatar to appear entirely abstract is for it to lose its visibility (Chapter 5.3.2). In other words, invisible avatars are completely removed from external representation Visual representation aside, the avatar could still be indirectly depicted through articulate descriptions in the text-chat channel. Other than pure invisibility, designers can achieve a more tenuous mode of abstraction through the relative stylization (“cartoonization”) of an avatar’s recognizable features. Under “normal” conditions, an “anthropomorphic image is likely to be more engaging and likeable because it is similar to the image people ‘expect’ to see, or the one they assume to be present when no image is provided by the medium or environment” (Nowak 2004:6). However, as the cartoon theorist Scott McCloud has illustrated (McCloud 1993: 30, 50); neither an avatar’s likeability nor familiarity diminishes when the anthropomorphic form (esp. the face) becomes increasingly abstracted through graphical stylization. On the contrary, McCloud has shown that with increased stylized abstraction, an avatar’s features become more identified with one’s self-image.236 An abstracted face gradually gains an iconic familiarity with the viewer even as McCloud
dilutes the representational familiarity with the face’s original form and shape. Astonishingly, McCloud sustains a subject’s iconic familiarity right at the border between representation and pure abstraction. Therefore, the more stylized a participants’ avatar form appears in the case study, the closer it will be correlated with this polarity of abstraction. Despite this iconic stylization, forays into pure abstraction would eventually weaken the viewer’s familiarity with the subject. More often than not, an avatar’s explicit recognisability correlates with its representational aspects.

5.4.2 Representation

“In a physical setting, when we refer to the term ‘representation’ it is usually in terms of a referent or something ‘standing in place for’ an antecedent. In 3D virtual worlds [...] avatars provide a visual representation of a user. Issues of gender, culture and ethnicity may or may not be expressed by means of this visual representation”


With the representational mode, an avatar is visually referring to something external to itself that is recognizable by someone else (i.e. humanoid, animal/insect, vehicle, logo, icon, symbol etc). Using the most direct form of representation, an avatar would appear virtually identical to its user. However, user-representation in Second Life does not necessarily need to be anthropomorphic. Since representation is often tethered with viewer recognisability, a user could still appear representational through slightly more abstract means by impersonating a celebrity (i.e. Andy Warhol), logo (i.e. Nike “swoosh”), or even a famous artwork (i.e. a Mona Lisa Painting). Understandably, there are subjective nuances that inform the degree of a designed avatar’s recognisability amongst other avatar users.

Depending on the education of the subject and his/her social circle, a completely humanoid virtualization of a person in “real life” might not be recognized at all by the subject. This is especially the case if the subject does not know him/her (and/or the avatar) personally. Paradoxically, even a critically acclaimed abstract work of art (i.e. a
Jackson Pollock action painting) can be “represented” as something culturally recognizable. Therefore, the researcher analyzed each of the participant’s designed avatars with these nuances in mind. From this analysis, the researcher determined the degree to which an avatar’s design was: a) completely recognizable by the participants (i.e. a particular known individual), b) recognizable as an archetype (i.e. Oracle), c) as a highly recognizable icon/symbol (i.e. a corporate logo) or d) as a general representational type (i.e. common household object, humanoid form etc).

From the artists’ perspective, user-generated worlds such as Second Life pose an implicit conceptual limitation that “…fits into a broader design issue […] that harks back to the question of representation in art.” (Heim 2001:5). In particular, Second Life’s art-world has dealt with persistent issues of representation derived from the iconography and mythology originally belonging to “real life” (RL)\(^{239}\). In Second Life, representation is not simply “…contrasted with ‘abstract’ or ‘expressionist’\(^{240}\) art…” (Ibid.), but is culturally bundled with the compounding issue of remediation (Bolter/Grusin 1999:40-49).

In the specific case of remediation, the virtualized representations of “abstract” art (esp. canonical abstract “Masterworks”) from the “real” world are directly imported into Second Life as valid artefacts that engage the local artistic discourse (Dena 2006 & Quaranta 2008). Consequently, most cultural artefacts in Second Life – whether they be avatars, agents, objects, or architecture – are currently being produced to further a “…tradition of representation where the artwork embodies a resemblance or isomorphic reference to something already given in the physical world” (Heim 2001:5). As a result, “…most people in Second Life do choose to stick with a particular avatar gender, shape and face, though it may be in constant flux (new clothes, new tattoos, higher quality ‘skin,’ or jewelry)” (Jones 2006:26). In the most isometric of cases (of which there are many), avatars become virtualized “self portraits”\(^{241}\) of their “real” biological selves (Meadows 2009). These idealized or realistic “representation of themselves […] allows a kind of low-grade immortality and a reflection that allows both exhibitionism and voyeurism” (Ibid).
This habitual tendency to fall back on representational sources goes beyond a user’s vanity and voyeurism. If one looks back to the Neo-Classical period’s ambiguous – but anthropomorphic - conception of “nature” (i.e. symmetry, organic form) as a representational source, then representation seems to be an unavoidable default design condition. Despite the concerted efforts from modernist artists to abstract their designs from all manner of representational association, it is questionable whether even the most creative modern artist could “…conceive of images” that “bore no relation to natural objects” (Boullee 1793 in Rosenau 1953:86). On the subject of the aesthetic functionality (i.e. the harmony that results from attractive anthropomorphic appearances) that representation regularly provides, this thesis has also explored the differences between purely utilitarian avatars and avatars that rely on ornament for social functionality.

5.5 Degree of Practicality

This parameter deals with the underlying purpose of designing avatars with either a specific functional goal in mind or for purely aesthetic (i.e. decorative) reasons. For example, some designers create avatars for smooth navigation in conventional spaces while other avatars are intentionally unadorned to minimize bandwidth-lag. This is because many ornamental designs contain elaborate “prim” particles and other bandwidth absorbing functions. However, some avatars are designed for enhanced social interaction – regardless of drawing upon limited bandwidth resources. In this case, designers may feel the need to ornament their avatars towards enhancing personal prestige (i.e psychological functionality) at the expense of navigational functionality. For some users, the use of ornamentation is essential towards making themselves feel comfortable in social situations.

Excessive ornamentation can sometimes distract the viewer from viewing the full psychological expression of a user’s avatar. Furthermore, a reliance on ornamentation easily impedes any sort of communicative functionality not related to
attention-seeking activities. In fact, opulent accessories can re-direct the viewer away from the avatar’s gaze and personalized gestures. Ultimately, psychological functionality does not neatly factor into either the “functional” or the “ornamental” polarity but is briefly addressed in both.²⁴³

5.5.1 Functional


This polarity examines avatars that explicitly show visual evidence of “functional” and/or utilitarian properties relating to issues of navigation, bandwidth, and communication (i.e. socialization).²⁴⁴ Structurally functional avatars are scaled at a moderate height to navigate through most of Second Life’s environments. Further, functional avatars usually maintain a clear visual connection with the user’s agency through highly representational limbs. Socially functional avatars are often highly attractive humanoids with expressive and clearly defined facial features.

Artists who value abstraction, however, consider an avatar’s ultimate function as providing “the experience of aesthetic value” (Greenberg 1970:5) within a “communicative” and “imitative” medium.²⁴⁵ Unfortunately, Greenberg’s precise Modernist interpretation of what “aesthetic value” is and whether Second Life would better qualify as an imitative or communicative medium seems inconclusive at best.²⁴⁶ At any rate, Greenberg expects the viewer to sincerely believe that an aesthetically “valuable” artefact is simply one that purifies its (relation to its) medium. In the Postmodern era of virtual worlds, an avatar’s true “aesthetic value” is highly prone to subjective opinion. For an aesthetic function to be measured as non-ornamental²⁴⁷, the participants would have to provide additional didactic information to the researcher as to the precise nature of their avatar’s aesthetic and/or narrative functionality.

Some designers create avatars with structural (interface) functionality in mind. Experienced designers are aware of an additional menu of camera controls where all
users can separate the movement of the viewer-camera from their avatar’s own movement. Using these controls, an avatar designer can become voyeuristic when seeing oneself through the orthographic perspective (based on Dickey 1999: Chapter 5).<sup>248</sup> Sondheim designed avatars precisely so they could be experienced using the full range of the advanced camera control settings (Chapter 4.2.2).

As for communicative functionality, Second Life is hardly the first such virtual world to create avatars that communicate effectively. On the contrary, virtual world designers for almost two decades have worked closely to ensure that their avatars effectively catalyze and sustain socio-psychological expressiveness. For example, Digitalspace Traveler’s template avatars were “floating heads” and thus, completely torso-less. The reason for this emphasis on the face was that the body – although it had its own gestural language – distracted attention away from the possibility of an intimate emotional connection through an avatar’s facial expressions and gaze.<sup>249</sup> The goal of an avatar’s design in Traveler was to sustain a high level of social immersion by maintaining “eye contact” and feeling “the effects of personal space” (Dipaola & Turner 2008:3-4).

In Second Life, the default avatar’s head also includes a full humanoid body. As a way of socially engaging other avatars, many users celebrate their virtual body through highly idealized – and often sexualized – representations of their “real life” personas. Unlike Traveler - which has a more fluid voice-chat and facial-animation system - any issues of intimacy (and honesty) are not as crucial to socializing in Second Life. In fact, a user in Second Life does not even need to focus much on the facial design since voice-chat is a secondary mode of communication to text-chat. Without needing a voice, a user can simply use suggestive body language and wear seductive clothing in order to draw positive social attention towards their avatars. Therefore, these idealized and sexualized avatars are still practically effective for short-term and superficial socio-psychological gain. For long-term socio-psychological connections with users, any “significant variation from his or her offline body (particularly gender) runs the risk of being perceived by others as a ‘fake’ or worse, as someone who is deliberately trying to deceive their friends” (Book 2004:8).
Ornamentation for the sake of glamour, however may be all about prolonging deception, distraction, exaggeration and illusionism. With a reliance on ornamentation for its own sake, many designers are able to sustain an avatar’s narrative functionality as an emergent mythological “character”. As far as the Modernists were concerned, a dependence on ornamentation comes with controversy.

5.5.2 Ornamental

“Ornament is a crime” – Adolph Loos, 1908 (in Schwartzer 2004).

This polarity isolates avatars (including components) that were not designed for any functional purpose other than aesthetic contemplation – for its own sake. Avatars designed strictly for aesthetic contemplation often wear an excess of accessories (i.e. jewellery on every limb), special effects (i.e. light particles) and distracting clothing (i.e. video-textures) that block immediate visual access to the limbs and facial features - thereby impeding the user’s sense of agency in a virtual space.

The reason why Loos’ polemic statement about ornament still causes such a polarizing rift between Modernist and Postmodernist thinkers is because the Modernists sincerely felt that “…decoration and the decorative are […] no longer free to be themselves” (Greenberg 1970:5). Although ornamentation has been continually blamed by Modernists as a lesser technique that superficially distracts the user from its designed structure250; an unintentional use of “unsuitable ornamentation only exacerbates the defects [...] by drawing attention to them” (Boullee 1793 in Rosenau 1953:91. Underlining by the Thesis Author). In an ironic twist, the canny use of “unsuitable ornamentation” may actually fulfil the Modernists’ hyper-mediated desire for an avatar to reveal its structural limitations - in an indirect way - to the user. From a Modernist point of view, ornament is not required to draw attention to the limitations of an artefact. Likewise, the researcher expects that some designers in Second Life will mirror the concerns of Modernist architects and will treat each avatar’s “joint” as “the beginning of ornament” (Kahn & Twombley 2003:11). Likely, the most Modernist of
these designers will be content with nothing more than ornamental “beginnings” since this opens up the user’s imagination to limitless decorative possibilities. Similarly, it is for this reason that light-based artists such as Dan Flavin connected the joints of fluorescent light tubes for the purpose of “dramatic decoration” (Foster in Weiss 2006:137). For Flavin, the luminous properties of light sufficiently displayed all of the ornamental effects that he required.

On the subject of “dramatic decoration”, ornament in a socially networked virtual world such as Second Life is much more functional than with strictly visual media. To elaborate, an avatar with personalized\textsuperscript{251} decoration is more likely to be remembered by other users as an important “character”. In a realm of generic template humanoid designs, identity differentiation as a humanoid avatar is more likely to be “characterized” through optically engaging ornamentation such as opulent accessories and clothing. For those who seek narrative functionality for their avatar, an over-reductive decorative tendency minimizes the possibility for emergent “character development”. If, however, the “joints” are designed in such a way as to allow for showcasing constantly changing ornamental novelties, then an avatar’s navigational functionality is optimized – even when currently unadorned. One way to achieve this effect is through a creative exaggeration of the joints themselves.

Another way to embellish an avatar’s distinctiveness (i.e. unique character traits) through “decoration” without compromising the Modernist imperative is through the skilful application of coloured textures. With colour, a resourceful avatar designer can “galvanize the most inertly decorative pattern into a pictorial entity” (Hoffman 1961:7). Providing that the selected colours are pleasing and novel to the eye, the use of flat and evenly textured tints enables the avatar to be socially unique while allowing decoration to once again, “be itself”. For some vocal critics of Modernism, the spare use of colour as a decorative strategy can “become problematic” for other media such as sculpture because, “the color [...] whether applied or in the natural state of the material, is identical with the surface” (Fried 1967 in Fried 1998:162). Underlining by the Thesis Author). The question remains then as to whether the isometric relationship between
the applied colour tint and the surface (i.e. the skin) of an avatar in Second Life is structurally confusing to the Modernist. Whether the act of skin re-colouring catalyzes a “narrative” confusion amongst other avatars is entirely subjective. What is also highly subjective – yet occasionally measurable on a qualitative level - is a perceived sense of authorial “craftsmanship” (virtuosity) behind an avatar’s design.

5.6 Evidence of “Craftsmanship”

“...practice with the avatar creation tools can lead to superior avatar design.”
– Corey Ondrejka, Second Life’s Former Chief Technology Officer (Ondrejka 2008:242).

This parameter examines the perceived technical virtuosity or “craftsmanship” of the participants’ avatar designs. In Modernism, a concern with technical proficiency is central to “entrenching” a specific medium into its “area of competence” (Greenberg 1960:1). In other words, “…the more closely the norms of a discipline become defined, the less freedom they are apt to permit in many directions” (Ibid:2). Therefore, advanced Modernist designers and artists will have internalized the structural norms of their discipline in order to create competent artefacts that are unique to Second Life.

There are many intuitive ways for the researcher to discern a relatively high level of technical virtuosity in an avatar design. The only way to know for sure whether technical proficiency led to an avatar’s design is by directly asking the designer or his/her peers and clients. On this level, the researcher can ask whether they had created their own components from scratch, modified template designs or had purchased some from another designer. Even with the latter, “craftsmanship” is not restricted to raw creation. On the contrary, designers can show an advanced level of “taste” and “composition” strictly through the quality of selected parts that they have acquired from another. As a result, the local provenance of that other designer can become very important in the artistic community.
For the purpose of this thesis, the researcher organized the polarities into two categories. The first discusses custom-built components (i.e. those that appear to have been made “from scratch”). The second discusses both pre-selected components (i.e. templates, recognizable “brand name” products) and pre-purchased components.

Strictly based on the visual evidence, there are some observations the researcher can rely on to detect a designer’s proficiency. One is to observe the ways in which the designer re-iterates an avatar’s form, composition and features. If the avatar goes through new iterations with fine details being attuned and edited in a very expedient manner, then it is likely that this participant understands the intricacies of design.

According to Bartle, a disciplined iterative process “can only be achieved through a proper understanding of the materials involved and a meticulous approach to experimentation, hence, all the painstaking cutting-out” (Bartle 2004:626).

Sometimes, all that a designer requires for experimental success is to have a high level of concentration, ample time, an eye for aesthetics and an attention to detail. Generally, those “creators who apply innovation skill, or time to their creations” will “generate more valuable artifacts [sic]” (Ondrejka 2008:237). With avatar artefacts, it is not the purpose of this thesis to determine which technically proficient outcomes more closely resemble “design” or “art”. In fact, it is the “…markets in Second Life” that “allow consumers” and art-critics to “define value in different ways” (Ibid). Therefore, the following polarities are not about distinguishing between art and design but deal only with the processes of customization and selection.

5.6.1 Custom Built Modular or Singular Avatar Components

“Within any thirty-day period, over 66 percent of the residents who used Second Life created something from scratch.”


This polarity examines avatars that were apparently constructed “from scratch” (i.e. with the in-world graphical translation tools) rather than relying on the convenient
use of template manipulation and selection processes. Avatar designs in Second Life will generally appear “well-crafted” if they are composed out of flexiprims. Unlike static prims, flexiprims are kinetic and responsive to Second Life’s in-world virtual “physics” such as collision, “wind” and torsion. Virtuosic avatar designs tend to possess textures whose image-sources appear intricate and manually designed (i.e. hand-painted). This means that avatars designed in this manner will show brand new components that were designed one “prim” at a time rather than arbitrarily relying on stretched, re-coloured and re-textured templates.

Second Life’s creators have implemented “atomistic construction” (Ondrejka 2008:236) directly into their world’s proprietary GUI. By pressing the “build” button, the user can activate in-world graphical translation tools [Figure 1]. These tools allow the user to select basic a plethora of starting “prims” (i.e. “primitive geometrical objects”) for custom construction, assembly, scripting and texturing.255 Furthermore, these modular building blocks are “combined to build interesting structures and behaviors, and are designed to support maximum creativity while still being simple enough for everyone to play with and use” (Ibid). For example, with a click of a checkbox, even a novice designer can easily transform a regular “prim” into a “flexprim”. Another popular customizable prim is known as the “superprim”. Superprims are large-scale geometrical objects256 that can cover entire tracts of land with their presence. As a result, it is quite easy for a designer to create avatars that resembles monumental sculpture and architecture. In addition, superprims come pre-scripted with animation and propagation (breeding) behaviours that resemble scattering particles. In terms of speculative design, it would be quite a virtuosic feat for an avatar – created entirely from superprims – to have its character traits distributed across vast virtual distances whilst retaining its “avatarness” (i.e. its figural gestalt). With additional experience, designers can embed LSL code directly into any one of these prim-types for enhanced “behavioural” functionality.257 As a user-generated platform, Second Life’s creation infrastructure generates a “nearly limitless set of combinatorial possibilities” (Ibid).
Second Life, as a collaborative and networked world, embraces an “iterative design” process where the act of selection directly relates to customization. For example, atomistic construction “allows everyone to reverse-engineer or improve on the ideas of others” (Ibid:238). Therefore, one can still create custom avatars by reverse-engineering template designs. In cases where the identity of the template component is still visible, the researcher will categorize a participants’ avatar under the second polarity related to purchasing and selection.

5.6.2 Pre-purchased/selected Modular or Singular Avatar Components

“I didn't make a drawing; I just picked up the phone and ordered it”  

Contrary to some popular opinions about Modernism, not all artists created their artworks by hand. In fact, many Modernist artists pre-purchased materials for their compositions and had their realizations pre-fabricated by a contractor. This polarity then deals with (hybrid) avatar designs that also relied upon purchasing, selection (Manovich 1995) and pre-fabrication for their aesthetic outcome. Avatars that rely on pre-fabrication and purchasing will feature visible name-brands (i.e. t-shirts or tattoos of rock-bands and corporations), generic accessories (i.e. a “flight feather”), and common effects (i.e. spherical particle diffusion).

For many users, Second Life is strictly a commercial application with a valid currency and economy. These users value Second Life’s marketplace as the real hub of creative and social activity. It is no surprise then that Second Life’s public relations department frequently promotes the residents as both content-creators and consumers. As Second Life is a user-generated world, users are encouraged to buy and sell their own creations. Among such economic transactions are the buying and selling of user-customized skin, tattoos and make-up within Second Life’s Marketplace system. An avatar author can literally sell or freely distribute one’s personal identity (i.e. “skin”
and “mask”) to other avatars for impersonation purposes. In some cases, established designers either sell these identity fragments in virtual automated vending machines or give template avatars away in “freebie” promotional boxes.

Due to Second Life’s commodity exchange paradigm, “the avatar bodies and clothing offered for sale in social worlds typically reinforce the idea that certain types of bodies inherently have more value than others” (Book 2004:9). This inflated cultural value perpetually becomes the primary incentive for acquiring designs from others even when it is only slightly more time-consuming to create the same design “from scratch” 260. Consequently, an ambitious avatar designer can earn a great amount media influence within Second Life as the consumers become comfortable wearing “name-brand” identities. As a “prosumer”, a user’s personal taste usually orders the compositional balance between customized and pre-selected items (i.e. objects, accessories and avatars). This matter of compositional “taste” expands in more detail with the “Levels of Visual Diversity” parameter.

5.7 Levels of Visual “Diversity”

This parameter measures the levels of an avatar design’s visual diversity through varying expressions of complexity (heterogeneity) and simplicity (homogeneity). Since “the flexibility and ease of [...] creation” (Ondrejka 2008:237) in Second Life “drives tremendous variety and experimentation” (Ibid), Modernism as an aesthetic can be expressed through maximalist and minimalist modes. 261 Maximalism’s axiom is “more is more” while minimalism believes “less is more”.

Cultural stereotypes persist that conflate High (Late) Modernism with Minimalism. Postmodern critics accused Late Modernists of being “minimalist” while maximalism is traditionally the hallmark of the Postmodernists. However, these stereotypes are not entirely historically correct as Abstract-Expressionist (i.e. Neo-Baroque), Serialist, and Stochastic art movements were formally rigorous while “Pop Artists”, “Conceptual Artists” and “Process Artists” used minimalistic compositions to
enhance their Postmodern representational critique of the Modernist paradigm. From these historical complexities, these formalist binaries below both address the Modernist preoccupation with “content-free” structure.

5.7.1 Maximalist

Maximalist avatar designs embrace heterogeneity of design components, structures and modules. Favouring visual complexity, maximalists attempt to express all aesthetic nuances. Maximalist avatars usually feature the simultaneous display of multiple colours (i.e. a different colour for each component), complex animations (i.e. full dance sequences) and constantly changing textures (i.e. default, photo and video). In some cases, a maximalist avatar will continually transform its basic shape into anthropomorphic and non-anthropomorphic configurations.

Many maximalist avatars will still possess an elegantly ordered “unified” design. Even the most complex assemblage of heterogeneous parts may resemble a singular gestalt pattern. This is especially the case if the design involves symmetry at a higher level. However, even as a unified form, a true maximalist avatar would be a “whole that leaves nothing out and of which all things are indispensable parts” (Mondrian 1919 in Braziller 1995:25). The default phenomenological affect of encountering an extremely maximalist design is one of overwhelming confusion.

5.7.2 Minimalist

On the other extreme, minimalist avatar designs embrace the elegance afforded by simple, direct and homogeneous compositions. Typically, minimalist avatars – regardless of perceived anthropomorphism – will contain no more than four colours, be uniformly textured (i.e. one photo source texture-mapped across all components), low in polygon count and symmetrical in appearance (i.e. a cube).

Minimalism is an ideal confused with notions of “taste” and “elegance” within the design community at large. Minimalist avatars emphasize the homogeneity of their
overall structure as well as their component parts. In other words, the fewer colours, shapes, animations, and textures involved in an avatar’s completed design, the more “minimalist” it will appear. Quite often, Minimalist forms will be symmetrical in appearance and uniformly textured. As a result, these Minimalist avatars will contain little more than the clear exposition of compositional unities and binaries. The next chapter will explore how all of these collected parameters informed the Author’s methodology during the Case Study sessions.
6 METHODOLOGY (QUALITATIVE)

6.1 Overview

Inspired by other virtual worlds methodologies and his previous research, the Author chose to create a case study within Second Life using participant-observation (i.e. through semi-detached role play activities) as the primary method. Second Life as a participatory environment, encourages all users to create roles for themselves. As Second Life has no top-down narrative infrastructure, the responsibility is left to the individual avatars to catalyze meaningful discussion topics amongst their peers. Therefore, the Author assumed the role of the “Modernist Art-Critic” in order to appropriately engage with the participants and collect data on the interactions. Symbolically representing “critical neutrality”, the Author assumed the default “noob” male humanoid avatar while conducting the case study sessions [Figure 9]. Known to participants as the “Researcher”, the “noob” avatar instructed them to make whatever avatar designs they felt were “unique to Second Life”, asking them to type their thoughts “out loud” in the text-chat channel. During this real-time process, participants were questioned why they were designing their avatars in particular ways. Otherwise, the “Researcher” practiced restraint and did not actively proselytize the Avatar Design Analytical Framework (Chapter 5).

In the focus group session, the “Researcher” went beyond the norms of anthropological participant observation and openly critiqued the participants’ designs as if he were a Modernist art-critic. He also encouraged a “show and tell” of non-anthropomorphic avatars for discussion purposes. The “noob” avatar reminded the participants of the template processes from which they designed their very first avatars. Therefore, the participants became aware of their default origins so they might see that
Second Life could be a singular “medium” out of which “pure” Modernist forms may emerge. The participants appeared comfortable with the “Researcher’s” “neutral” appearance. This comfort allowed for increasingly active modes of participant-observation to occur through the text-chat channels. The video-documented avatar designs from the avatar-creation workshop, and the text-chat results from the focus group session provided illuminating data for preliminary analysis. The “Art-Critic’s” active role in the process allowed him to further elicit additional valuable data during the focus group.

6.2 Influences

6.2.1 Virtual Worlds Methodologies

Established virtual world anthropologists have applied participant-observation in Second Life to examine “mundane social interaction in order to identify as many of those grounding assumptions as possible” (Boellstorff 2008: 65). However, the extent to which the researcher may play an actively critical role in the context of collaborative user-generated content in these worlds is inconclusive. According to Boellstorff, “there is no illusion of detached objectivity to shatter in participant observation because it is not a methodology that views the researcher as a contaminant. It constantly confronts the differing forms of power and hierarchy produced through fieldwork, not all of which privilege the researcher [...]” (Boellstorff 2008:8). This embodied form of participant-observation is most appropriate within virtual worlds where the creative agency of the researcher is equivalent to that of the participants. This is especially true in participatory worlds such as Second Life where the avatar users directly contribute to both the general form of the world as well as its discrete content.

One of the motivations for participants to enter user-generated worlds such as Second Life is to play out diverse roles that test the ontological boundaries of identity and social positioning associated with “Real Life” (RL). In this sense, most qualitative
researchers who choose to study Second Life and its inhabitants are encouraged by their participants to engage in indigenous community events as fellow avatar citizens rather than as aloof ethnographic observers (Ayiter 2008).267

Agreeing with Ascott (2007) that Second Life is a “[...] rehearsal room for a future in which we endlessly create and distribute our many selves”, the “Researcher” conducted a case study focused on peer critique of avatar designs. The participants had the opportunity to rehearse their assigned roles as “Modern Artists”, and the “Researcher” created a complementary participant-observer researcher role, the “Modernist Art Critic”. Through their role-playing of “Modern Artists”, the participants determined the degree to which they would allow the “Modernist Art Critic” to go beyond passive-observation and act as a “participant-influencer.” This attitude of willing inclusiveness from the participants towards the researcher exists primarily because the participant-observer was another individual role-playing a "researcher" in a spirit of playful interaction. This raises a crucial question over whether the “Researcher’s” adopted role drifts too far from being an equal participant amongst consenting subjects. In an extreme case, many conventional anthropological researchers from the “real” world would perceive a highly active researcher as a “contaminant”.268 In order to address this question directly, this case study directed a means to explore the liminal spaces between passive observation, active criticism, and constructive persuasion.

This case study focuses on the dynamics between the researcher and avatar participants recruited from a self-consciously “artistic” community. The community forms a domain of embodied real-time learning where peer-reviewed participant-observation and collaborative content-creation among avatar residents is the accepted norm. These conventions for research as a form of embodied praxis (including role-playing) are traced back to previous investigations with earlier chat-based virtual worlds.269

Unlike these worlds, Second Life offers a persistent community infrastructure, continuing academic discourse and capacity to maintain the participants’ customized avatar designs. Although the template avatars from earlier virtual worlds fostered the
development of role-playing archetypes; Second Life has the ability for role-players to create whatever avatar they envision. In earlier worlds, a participant would have to be an expert in external software applications for creating avatars “from scratch”. Second Life provides fertile ground in which all users critically construct research roles in real-time. With this background, the “Researcher” and participants adapted an imported theoretical framework.

6.3 Neo-Modernism and Participant Observation

The Modernist era witnessed the art-critic’s accelerated epistemological and ontological transformation from a passive-observer (i.e. cultural anthropologist) to a “participant-influencer”. Art-critics could use their persuasive personas to compel the subjects (artists) to reach very specific aesthetic outcomes - even if these outcomes were alien to the original intentions of the artist. Greenberg “made extremely aggressive studio visits, choosing and editing paintings, [...] telling artists what to do” (Perreault 2006). In Modernist times, critics analyzed artefacts from an a-historical context. The artists-as-subjects were not really the ones being researched (i.e. Vasari 1550). Instead, the objects of observation were the artefacts they had created –with the hopes of impressing the researcher-as-critic. The epistemological target becomes more sensitive when the observable avatar design is both an artefact and a visual extension of the artists’ own role-played personas. Controversial Greenbergian critics took a pro-active role, insisting that Modernist artists conform to their aesthetic ideals. These ideals would transcend both the chosen avatar role and situated ethnographic context. In this case, these re-purposed ideals transcended Second Life’s ethnographic context.

The “Researcher”, through the complicit act of role-playing a Neo-Greenbergian art-critic in the name of researching avatar artefacts on their own terms; simulated the attitude of “critical detachment” mid-way through the case study’s focus group session. This simulated detachment mirrored aspects of the same role-played personality traits
that Greenberg himself used in “real life”. For example, Greenberg simulated an attitude of “critical detachment” as a means to “avoid content” through a veil of “objective” authority to his truth claims (Carpenter 2008:7). The “Researcher” role-played this attitude of “objectivity” in order to convince his peers in the “High Art” community that he was a cultivated and discerning Modernist “aesthete”.272

6.4 Sampling and Data Collection Procedures

The Researcher’s personal combination of participant-observation methods informed both the participant sampling and data collection procedures.

6.4.1 Participants

Six participants were selected for their ability to role-play “aesthete” peers. This demographic was sampled from an established contemporary arts community in Second Life; a) for their innate understanding of Modernist principles, b) their relationship to the indigenous evolution of Second Life’s avatar design, and c) their ability to role-play the archetypal “artist”. Furthermore, these participants were recruited through “snowball sampling” (Taylor 1999 & Boellstorff 2008). This technique is sometimes considered a form of “convenient/opportunistic” sampling where trusted participants help attract additional subjects through friendship networks. In addition, there was a public “call-for-participation” for an “iterative avatar design workshop” placed within Second Life and Facebook.273

Once the participants had agreed to participate, four of the short-listed participants were invited to take part in an intensive two-hour workshop and focus group session. For the workshop, participants were sent an additional note-card explaining the Modernist art-historical discourse. The session began with another note-card explaining the kind of “appropriate” Modernist visual design parameters expected to appear in some degree within each avatar.274 After explaining the parameters, each participant provided explanations as to whether they chose to structure their avatar in
these ways or not. During this first session, the “Researcher” did not reveal the full Greenbergian personality and promised to initially remain as a passive observer in order to avoid un-natural influence that would restrict the freedom of participants to design avatars.

In some cases during the workshop, participants were asked to pose in particular ways for visual-documentation purposes. Furthermore, the participants reminded them to speak (type) their mind “out loud” in the text-chat channel, explaining their avatar design decisions. Participants were aware that chat-archives of the avatar design critiques and auxiliary correspondence from the focus group session were available for future reference. Since these archived conversations encouraged critical feedback, the “Researcher” gradually revealed an increasingly Greenbergian personality behind his “neutral” and “innocent” looking avatar appearance. Unlike the behaviour of extreme Modernist critics, these critiques were not as harsh. Despite the mild nature of these aesthetic interventions, participants received persistent feedback from an “art critic” rather than simply observing or working on their own avatar creation. As the “Modern Art-Critic” began to take a more pro-active critical role, Boellstorff’s considerations for participant-observation were pushed to their epistemological limits. Throughout the duration of both the recruiting procedure and the research period, participants were informed about the purpose of the research and the ways in which their data was going to be stored.275 Participants also understood that the integrity and privacy of their data would be ethically archived.276

6.4.2 Data

The majority of the data in this study was collected during intensive case study sessions totalling 4 hours. The data included videos, screenshots, text-chat responses and avatars [Table 2] (Chapter 7). For the initial analysis, the Author watched all of the videos and created summaries relating the avatars’ visual appearances and building processes to each parameter (Chapter 5). In addition, the Author went line-by-line
through the text-chat responses and highlighted keywords that alluded to these parameters. After the text-chat responses were coded to fit the parameters, additional summaries were created to hypothesize preliminary findings. Screenshots were used to focus in on particular visual aspects of the studied avatars. Fortunately, this data contained enough qualitative depth and internal validity for a detailed parameter analysis.

One of the challenges with employing a qualitative participant-observation methodology is the huge complex data-set that results from the many interactions with even a small-number of participants. However, immersing oneself fully within Second Life’s community infrastructure to obtain comprehensive aesthetic standards requires this long-term commitment. The multiple perspectives offered by the participants (Chapters 7 and 8) confirmed that the robust nature of the collected evidence supported the narrative shown with the research findings.

6.5 Thesis-specific Epistemology

6.5.1 Avatars as Artefacts

The main artefacts under analysis are the avatars presented by the participants. The Author chose to emphasize the artefact rather than the subject in order to correlate higher-level design principles for visual avatar construction. All of the visual and textual data collected from the case study workshops, focus groups and expert interviews were related back to the analytic framework derived from the literature outlining art-historical arguments for medium-specificity (Chapters 3 and 5). Role-playing as a “Modernist Art-Critic”, the Author decided to “try out themes on subjects” and “play with metaphors, ontologies, concepts” (Bodgan & Bilken 1992:XX) as a means to “identify patterned regularities” (Walcott 1994b:XX). Through the identification and analysis of patterned regularities, the intention was to extract the performative
“essence” of building avatars in Second life – either through modular assembly, pre-selection or through template shaping (Manovich 1995).

6.5.2 Usage of Other Didactic Materials

Video, screenshot and text data recorded from the preceding workshop was embedded back into the virtual environment for closer peer-reviewed analysis and critiques. This data was also available for re-use as illustrative reference material when conducting expert interviews via email. Thus, the expert interview process became a methodological triangulation of the data gathered from the workshop observations and the focus group artefact critiques.
CHAPTER 7: general discussion of collected evidence –

<table>
<thead>
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<th>Category</th>
<th>Workshop</th>
<th>Focus Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>Video (minutes)</td>
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<td>41</td>
<td>91</td>
</tr>
<tr>
<td>Screenshots</td>
<td>5</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Valid text-chat responses</td>
<td>514</td>
<td>299</td>
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<td>Valid text-chat word count</td>
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<td>3,110</td>
<td>7,139</td>
</tr>
<tr>
<td>Avatars</td>
<td>4 (initial), 4 (designed)</td>
<td>4 (designed), 22 (presented)</td>
<td>34</td>
</tr>
</tbody>
</table>

Table 1 – This table shows the quantity of visual and text data collected from the case study.

<table>
<thead>
<tr>
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<th>Workshop</th>
<th>Focus Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropomorphic</td>
<td>8 (standard) 0 (deformed)</td>
<td>9 (standard) 4 (deformed)</td>
<td>21</td>
</tr>
<tr>
<td>Non-Anthropomorphic (representational)</td>
<td>0</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Completely Abstract</td>
<td>0</td>
<td>Recount 2 (persistent) 2 (transforming)</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 2 – This table shows the quantity of different avatar types presented in the case study. Since the residual “deformed” avatars are also counted in this instance, the totals are slightly higher than reported in Table 1.

The majority of the data in this study was collected during intensive case study sessions totalling four hours. Data included videos, screenshots, text-chat responses and avatars [Table 1]. The researcher parsed this data through the six Modernist parameters (Chapter 5). For the initial analysis, the researcher watched all of the videos and created prose summaries relating the avatars’ visual appearances and building processes to each parameter. In addition, the researcher went line-by-line through the text-chat responses and highlighted keywords that alluded to these parameters. After encoding the text-chat responses to fit the parameters, additional prose summaries influenced the preliminary findings. Screenshots served to illustrate particular visual
aspects of the studied avatars. Fortunately, this data contained enough qualitative depth and internal validity to be analyzed in terms of each parameter’s requirements.

This chapter deals with a detailed analysis and discussion of the case study activities (i.e. workshop and focus group sessions), avatar outcome highlights and other speculations.

7.1 Workshop Discussions

This sub-chapter specifically deals with the workshop portion of the case study. For the workshop session, four participants attended. All of the participants used their Second Life names: Ember Coakes, Juliet Chambers, MinDblinD Setsuko, and 3Star Tyne. None of the participants revealed their “real life (RL)” names.

7.1.1. Avatar Designs from the Workshop

The participants barely had enough time to iterate one avatar design each. In three-quarters of these cases, the avatar designs were incomplete. Even at this preliminary stage, the predictability of their avatar designs clearly foreshadowed the finished designs presented at the following focus group. All of these avatars were clearly humanoid and resembled idealized versions of either the participants’ real-life self or represented a preferred archetype from Western mythology. Coakes, for example designed a fully humanoid avatar with green skin and hair. Coakes purchased an official “Stella di Rocci” name-brand skin from the “Vibrant Tones set”, sold by PixelSpa. Intended to be a portrait of a “Goddess of Second Life”, Coakes’ Graeco-Roman themed avatar resembled a more attractive humanoid version of “Medusa” without the use of snakes for hair strands. According to Coakes, her avatar resembled a figure from the “Temperance card from the Vertigo Tarot” deck [Figure 10].
Chambers’ avatar, however, was modelled on a much more generic Princess archetype. Chamber’s goal was to create an “American Cinderella” at the “Ball[room]”\(^2\). This princess avatar wore an unadorned black dress and a glittering tiara. Chambers used “freebie” template skins, gestural software and accessories. Chambers also modified her template skin in order for the texture to appear “more fake”. Therefore, skin symbolically represented her conception that Second Life is both a uniquely “fake” and “American” cosmetic space. In addition, Chambers used an in-world gestural-animation triggering application called a “smiler” and an animated eye-enhancer called a “twinkler”. Although the application’s interface was not shown to the researcher, Chambers described the “smiler” as being able to position the avatar’s lips perpetually in a smiling facial expression.\(^2\) The “twinkler” was employed to increase the social functionality of the gaze by twinkling an aura around the Princess avatar’s blue eyes. More so than the “smiler”, the “twinkler” seems to act as the equivalent for ornament. Chambers said that she modelled her own avatar after an idealized version of her “real life” self.\(^2\) However, it is unclear whether or not the Princess avatar also
 retained these remediated features as there is no “real-life” picture available to the researcher for reference.

Setsuko, the least talkative participant of the group
de, focused more on design process than outcome. Initially having navigation issues due to not wearing a flight feather, Setsuko scrolled through various objects in “his” inventory in order to find some complimentary design. As an angelic archetype, Setsuko scrolled through various wing-types that “he” has collected from “his” inventory. Some of these wings were conventional angelic types that exist in “freebie” and low-cost inventory folder libraries. Setsuko experimented with various template wing colours and textures with no explicit regard to their representational associations outside of being cheap accessories. The colours that were available to Setsuko were black, white and red while the textures were mostly elementally themed: air, water, fire etc.

The researcher’s favourite pair of selected wings was the “air” variety as they were transparent and heavily pixellated. This pair of wings symbolically exposed the graphical limitations of Second Life while retaining its representational mythological associations. The fire wings were also relevant in that the fire was obviously an animated texture map over a clearly defined transparent wing outline. Unlike the other participants, Setsuko seemed more concerned with accessory selection than “his” avatar’s shape and purchased skin. Wearing only a pair of “freebie” textured jeans and shoes, his main avatar’s shirtless male athletic form showed no visual evidence of anything other than template-slider manipulation and default accessory selection processes.
Arriving late, Tyne promised to create a “cute” male medieval-themed avatar with long hair and a leather outfit for presentation at the beginning of the focus group session. In the meantime, Tyne wore an oriental-themed female avatar with highly ornate blouse and dress patterns. Focusing on subtle textural details, Tyne used external software to model the crinkled gold-flake texture for the dress while using a detailed photo-map texture for the blouse. Interestingly, Tyne designed the dress’ wrinkle texture to look as if it was illuminated by an external light source [Figure 11]. The properties of light itself became representational and therefore, hypermediation was included in the dress design. The blouse’s photo-texture seemed to use a “landscape” painting as the source image. This landscape photo-texture featured five distinct colours – all with subtle gradations and shading.

Towards the end of the workshop, Tyne assumed a burly male form (bald and with chest hair) while still wearing the dress. This gender-ambiguous avatar resembled someone in “drag” [Ibid]. The fact that Tyne spent a good portion of this workshop in this transitional gender-iteration seemed to indicate a preference for the male form while still being fixated on the virtuosity of the oriental dress design. Tyne was the only
participant to custom-design “her” own components (i.e. hair and accessories). Tyne was also the only participant to have admitted sketching out ideas beforehand using analogue methods. Other aspects of Tyne’s virtuosity were also generated entirely within Second Life. For example, Tyne’s medieval avatar featured a hairpiece wig with a base made of solid prims. Furthermore, “she” combined this base with a “curly” strand made of custom-altered alpha textures. These custom textures – using external software applications - were applied to the leather clothing and accessories as well.

Most – if not all - of these avatar design outcomes echoed Benjamin Moore’s own findings about avatar design. In Moore’s avatar design study, “most answered that they did identify strongly with their avatars and looked like them with the caveat that the gender was different or they had multiple avatars for different aspects of their personality or that the avatar was a character in a drama or who they wished they were...” (Moore 2007 in Cheal 2007:206). In this workshop, only Tyne went out of “her” way to declare that her main avatar does not resemble her “real life” self. The others at least strove to represent fictionalized aspects of their “real life” selves in Second Life.

7.1.2. Analysis of Real-time Peer-reviewed Avatar Designs

The participants were generally too busy creating their avatars to engage in a detailed critique of other designs. In fact, there were no solid instances compiled from the text-chat data that indicated peer-reviews of any one particular avatar design. Overall, the vocal participants discussed their own designs during the creation process. However, the researcher noted some general confirmations, observational remarks and agreements amongst participants relating their avatar designs in the text-chat channel. For example, the participants all seemed to have a personal narrative preference for fantasy-based archetypes. In many cases, participants vocalized their desire to create additional avatars using mythological themes. However, it is unclear whether this
homogeneity of taste was due to the researcher’s “snowball sampling” method (Chapter 6) or was representative of Second Life’s broader cultural conceptions of taste.

Regardless of sample group, the participants only saw their avatars as gestalt forms when seen through the lens of narrative functionality as archetypes. In fact, all of the accessories, skins and clothing related to highly representational generic archetypes. For example, Juliette wanted a generic tiara to wear on her head even though the exact type of tiara was unimportant. Chambers did not seem to care for the aesthetic qualities of one accessory over another but simply wanted a particular crown shape befitting of a Princess role. As further noted in the following focus group, the participants treated the accessorized abstract particle effects with a very representational purpose and intention – relating to the narrative fictional realm of fantasy/mythology. The participants considered these accessories, animations and clothing (in total) only to be half as important for narrative functionality and social interactivity as the core avatar form. In the context of the visual evidence supplied from the workshop, these remarks articulated the fact that the participants spent much
more time focusing on each avatar’s shape and skin than ornamenting and accessorizing. Having said this, the participants felt that an avatar’s “identity” is ultimately determined by their clothing.

On the subject of identity construction, the participants had also confirmed through the text-chat conversation that idealization of one’s real self is the usual aesthetic process for addressing concerns of social functionality and personal expression. Predictably, the participants’ vocal interest in social functionality and idealized authenticity increased when conversing in a group setting. In fact, participants agreed that idealization (including sexualisation) of the represented “real life” creator’s appearance in Second Life amounted to an accurate consensual perception of “reality” amongst their peers. Despite her ideal of “fakeness”, for example, Chambers consciously attempted to represent an idealized version of her “real life” self when referring to her main “Juliette” avatar. This avatar was not that visually distinct from her “Princess” avatar [Figure 12]. Another vocal point of agreement between participants had to do with their mutual interest with purchasing name-brand skins and accessories.

Comprising a relatively large portion of the workshop discussion, the participants name-dropped known skin and accessory designers as a way to express their familiarity (i.e. connoisseurship) with avatar design amongst their peers. As a result, the participants directly correlated “craftsmanship” in avatar design with tastefully selecting (Manovich 1995) and purchasing designs created by others. Therefore, the art of collection becomes an accepted design technique. Coakes, for example, collects skins with “bright colours, rather than human skin tones, because they are artistically versatile” (Coakes 2009, Workshop 14:11). Likewise, Chambers (who used internal modification tools), proved her technical competency by colour-saturating her purchased skin’s texture to look more abstract – thereby accentuating her archetype’s “fakeness”. Essentially, the art of inventory storage management allows the designer to retain a “solid collection of a wide variety of human skin tones, with and without makeup” (Ibid) for the purpose of convenient modification.
As a legitimate design technique, the hobby of collecting and storing default, free and pre-purchased inventory items has completely eclipsed the participants’ interest in customization (Tyne being the only exception). This reliance on and obsession with externally designed and pre-stored inventory items means that the only real “customization” as such is through the shaping of the core avatar’s facial and bodily proportions via Second Life’s template sliders. Overall, the participants seemed to treat their collected inventory items and avatar shape as separate forms.

As Coakes has observed, there is a direct correlation between customization and perceived time spent in Second Life. This is because, over time, more experienced avatars tend to rely less on generic “freebie” templates and skins. Instead, avatars tend to sport more customized details. However, this personal customization is illusory because most avatar users spend more time purchasing skins and accessories from others rather than creating their own. For the focus group session, the participants were much more vocal about reviewing the showcased avatars - especially since most designs were created by others.

7.1.3. Possible Future Directions for Avatar Design

Due to the workshop’s time constrictions, it would be pre-mature to speculate on future designs based on avatars produced during this session. Generally, the participants had all interpreted “Second Life” as a representational fantasy-based platform. Therefore, all of their outcomes mirrored this interpretation and did not explicitly show visual evidence of the Modernist Avatar Design Framework (Chapter 5). In retrospect, the researcher could have explicitly encouraged non-anthropomorphism and abstract visual elements as a design option although this would have biased the results. It is still unclear whether the participants chose to focus only on humanoid forms out of convenience or personal preference. At one point, two of the participants looked almost identical (i.e. nude female humanoids) except with different textured and coloured skins (scales) as well as some alien-like facial features (i.e. pointy ears). As a
group session, it would interesting to focus on this process more to see how much variety can be achieved with skinning alone. From such a study, one can measure more clearly which avatar designs are best suited for best accentuating the figure against an indistinct background.

Another possibility for iterative avatar design – on the workshop level – would be for all participants to scroll through their object inventories in order to discover which items/accessories suited their “Second Life” avatar the most and why. Most of the speculative avatar design issues were explored in the following focus group session and not the workshop.

7.2 Focus Group Discussions

Video, screenshot and text data recorded from the preceding workshop was embedded back into the virtual environment for closer peer-reviewed analysis and critiques. This data was also available for re-use as illustrative reference material when conducting expert interviews via email.305

7.2.1 A Retrospective Analysis of Each Participants’ Presented Avatar Designs and Process

7.2.1.1 Focus Group Introduction – Completed Workshop Designs

The first portion of the focus group began with the same workshop participants presenting their completed avatar designs.306 As mentioned earlier (Chapter 7.1.2), the workshop designs were all humanoid shapes. Despite this continuity, some of the participants modified their workshop designs in a new manner worthy of study.307

Tyne, for example, created a variation on her “Medieval” leather-clad avatar. This new gender-ambiguous variation now sported additional flexi-prim hair, a loosely fitting monochrome “bullet-belt”308 and more importantly, a lower torso modelled after
a mermaid. As the most accomplished designer amongst the participants (in both “real life” and “Second Life”), Tyne’s medieval mermaid avatar showcased photo-mapped wing textures. The source texture for these wings – resembling waves - was unknown although it was likely one of Tyne’s landscape paintings. Despite the wing’s visual detail, there were only three colours. This seems to indicate that –even with the most virtuosic designers – visual simplicity appears through either the texture or the colour. As a counter-balance to the virtual leather clothing, Tyne’s mermaid changed into a mini-blouse and form-fitting skirt that wrapped around “her” lower torso.

With this tertiary iteration, Tyne’s blouse and skirt incorporated the wing texture’s source image but also included some static white particles for mild ornamentation purposes. Tyne is more concerned with ornamental detail than the other participants because by “her” own admission, “she” makes avatars for customers to buy for role-play. Tyne’s design goal is to make the avatars as realistic as possible – given the constraints of Second Life (Tyne 2009. Focus Group 12:12).

Coakes’ finished “Goddess of Second Life” workshop design now sported feathered wings. Unlike the original workshop iteration, Coakes wings were coloured differently than the rest of the avatar. However, Coakes utilized no more than two distinct colour tones for her design. Texturally speaking, the only real detail was in the colour gradations and the texture used was simply a “feathered” pattern.

7.2.1.2 Other Participant-Authored Avatar Designs.

During the discussion of the finished workshop designs, the participants began to show some other avatars that they had created themselves. Of all the participants, Tyne seemed to be most concerned with the iterative design process. In addition to the medieval mermaid avatar, Tyne presented a fourth variation on this hybrid mermaid design [Figure 13].
FIGURE 13. TYNE’s Mermaid-hybrid avatars. (Case Study, 2009)

Treated as a combination of three of her elemental workshop designs (i.e. oriental, medieval and mermaid avatar templates); Tyne’s newest iteration focused more on accessory placement and an apparently arbitrary presentation of clothing fragments. Tyne’s re-combinatory design featured the “female” humanoid form, gold flaked dress, landscape photo-mapped blouse, tri-chromed ornate necklace, and a pair of red ribbed insectoid wings with black polka-dots. Unlike other humanoid faces presented at the focus group, Tyne’s hybrid avatar’s head was photo-textured from a bi-chromatic source. Through this photo-texturing process, Tyne’s avatar’s facial features were occluded from the bald head’s overall form. In fact, the only “features” as such, were the shading affects that refracted from different angles of the facial features’ outline. To mimic the mermaid motif, Tyne designed a candy-cane striped (i.e. red and white) tail-fin. Occasionally, Tyne would re-dress this avatar throughout the focus group. Despite the clothing and texture changes, the basic avatar form was preserved and the changes in outward appearance did not affect the research findings. Tyne’s second design was an “oriental-themed” avatar that Tyne claimed was from the Tang Dynasty (Tyne 2009. Focus Group 13:50). Besides being a generic orientalised female humanoid form, the avatar’s dress was one of the most elaborate designs presented at the focus
This dress featured four colours with texturally detailed yellow and black flaps. Tyne’s dresses never crossed over into any sort of Maximalist aesthetic(s) since there always remained a slight heterogeneity of texture.

Coakes on the other hand, presented just one additional avatar from her personally authored collection. Known as the Norse Goddess, “Freya” [Figure 10], Coakes’ highly representational female humanoid avatar sported a mane of Celtic red-hair with a long green dress and mustard-yellow undergarments. Coakes’ pale skin was exaggerated to the point of looking vampiric. In terms of ornamentation, “Freya” contained the most jewellery of all of the presented avatars. Furthermore, this pre-purchased jewellery was the most realistic looking. “Freya” featured a brown sash with a golden-medallion buckle, leather bracelets, a headband, “pearl” necklace, symmetrically placed red texture-less broaches and a band of Celtic patterning at the bottom of her dress. Interestingly, each individual jewellery piece was highly detailed. The buckle for example, although monochromed in virtual bronze, demonstrated a highly virtuosic facial portrait. Overall, Coakes’ highly decorated “Freya” avatar was not representative of the other mostly unadorned avatars presented at the focus group. However, Coakes’ “Freya” avatar did represent the personification of iconic gesture animations. For example, Coakes was trying to find a “Jesus” pose for her avatar. Therefore, even something as abstract as gestures tie directly into narrative functionality through mythological representation.

Chambers decided to showcase the avatar that she usually identifies as “herself” in Second Life [Figure 12]. Designed as a representational tribute to the celebrity actress “Jessica Alba”, Chamber’s avatar wore tanned skin that was completely customized by her avatar boyfriend (Chambers 2009. Focus Group 12:20). Sporting “ripped” blue-jeans with holes that expose her pixellated flesh, Chamber’s avatar used representational functionality as a way for the viewer to pay attention to the hypermediated nature of virtualized flesh. In fact, her flesh-coloured ballerina shoes accentuated the virtual nature of her tanned skin. From a distance, the viewer could not tell whether Chambers’ avatar was barefoot. Chambers also intentionally
emphasized her avatar’s social functionality through the fullness of her red lips and playfulness represented by her dirty blond bowl-cut hair style. In terms of clothing, Chambers wore a long two-tone blouse. As a semi-transparent garment, Chambers’ blouse revealed the exposed structural undergarments such as her bra. This semi-transparency suggests a mild hypermediated experience of the ways in which the avatar artefact can be dressed in a similar manner as a real-world female human.

7.2.1.3 Focus Group Avatar Presentations

(a) (b) (c) (d) (e)
During the official avatar presentation portion, the participants displayed “creative” avatars from their inventory archives. With all of these examples, the participants displayed their connoisseurship. In short, other professional designers created these avatars from outside the immediate research context. These presented designs ranged from humanoid through non-anthropomorphic (i.e. insects and animals) all the way to non-living (i.e. personified objects-as-avatars) and completely “abstract” avatars [Figure 14].

In the humanoid category, Chambers and Tyne presented a total of five avatars with varying degrees of relative abstraction. Chambers presented the most representational external design to the focus group. In fact, Chambers presented an exact copy of an avatar celebrity, Gazira Babeli. A popular performance artist in Second Life, Babeli sold identical copies of her avatar in 2007 for one linden dollar as a critique of Second Life’s market economy. This slightly tanned avatar wears
completely texture-less black clothing. Not only is Babeli’s hair black but she also wears black sunglasses, a long black dress, a tall black hat and shoes. Only on occasion does Babeli even wear ornament such as a simple monochromed necklace and dark brown coat buttons. The fact that Chambers wore an identical copy of a well known artist in Second Life as an example of an “essential avatar design unique to Second Life” suggests that cultural cannibalization - through a recursive remediation loop – is indicative of Second Life’s unique “medium-specific” design characteristics.

FIGURE 15. 3Star Tyne’s “White Witch” avatar. (Case Study, 2009).

Going a step further towards visual abstraction, Chambers and Tyne presented symbolic avatars. Referring to external mythological sources rather than from Second Life’s own emergent mythological pantheon, these avatars were not entirely representational. Instead, their forms symbolically represented some “abstract” qualities. For example, Tyne’s glowing “White Witch” - except for the austere black jewellery - was completely white from the skin, to the form and the accessories. With all of these components, the levels of transparency varied from completely texture-less and opaque to explicitly translucent. Furthermore, the overall homogeneity of the avatar’s colour-scheme was counter-balanced through the structural diversity (and virtuosity) of geometrical planar surfaces. Despite the apparent concern with detailed
optical phenomena, this avatar was still completely representational. For example, this avatar wore a belt ornamented with repeating skulls and held a bouquet of white-roses. Unlike the rest of the avatar’s design, the only evidence of actual colour was an occasionally green glow emit from the centre of the bouquet [Figure 15]. In addition, the Witch’s white hair was built from flexi-prims in order to display enhanced realism with regard to virtual “wind’ conditions.

Chambers presented a similar avatar to Tyne’s White Witch. Known colloquially during the focus group as the “Wooden Avatar” [Figure 16], Chamber’s presented design featured a monochrome homogeneous texture that represented the materials of wood and cardboard paper. In tandem with the White Witch, this Wooden Avatar featured many customized (i.e. prim-based) geometrical surface-variations (i.e. crinkles) for the hair. In fact, the hair-strands were shaped with such virtuosic detail that separate designers had created them. As a reminder, the virtuosity here is only with the shapes themselves and not the texture nor colour. Similar to the hair design, the Wooden Avatar’s belt has many geometrical rectangular forms including some.
asymmetrical cubes placed as part of the belt’s overall design. Contrary to the Maximalist aesthetic, however, the single wooden texture again unifies the whole design towards simplicity.

On the subject of minimalist visual simplicity, Chambers had also presented the most “abstract” of the humanoid designs. This untitled humanoid avatar was little more than an outline of a generic unadorned (and bald) female form. The only visible “ornamentation” with this avatar was the transparent “water” textured dress, a halo made from gray particles and an aura that adjusted its brightness levels at random. Otherwise, this form was completely dark-gray and utterly texture-less. Based on the collected text-chat data; this is perhaps the only humanoid avatar that did not have any overt mythological association. Only in one case was the anthropomorphism of the avatar’s form subverted. “Harpie 2.0” [Figure 14a] featured three colour gradations (white, black, blue with dark blue [almost violet] highlights). These shaded gradations – resembling shadowy “spikes” - protruded from the hair and tail in a uniform fashion. In fact, this spike motif re-appears throughout the form. In one clear instance, the viewer can see lightning spikes protruding down the legs. Unlike the other humanoid avatars, the “Harpie 2.0” subverts its anthropomorphic identity by sporting black hooves for feet. Arguably, the most “abstract” avatar form presented during the workshop was an “Invisible Avatar”. Despite its optical obscurity from representational associations, users commonly view the “invisibility” phenomenon as a mere “effect” or “accessory” (i.e. invisibility cloak) worn by a generic humanoid avatar. Beyond the humanoid form, the next category of avatars deals with non-anthropomorphism.

In the non-anthropomorphic (but still representational) category, the participants presented mythological creatures of reptilian and insectoid taxonomies. Of the reptilian variety, the participants presented one dinosaur avatar and three dragon avatars. Tyne presented a fairly generic looking (and slightly cartoonish) “Tyrannosaurus Rex” avatar [Figure 14b] that he had coloured himself. This dinosaur’s rear-torso has a smooth purple texture with uniformly applied black smudges. The dinosaur’s front-torso, however reveals a two-tone “gray” texture. The darker gray
texture is actually less prominent and almost functions ornamentally since the colour demarcates the dinosaur’s jowl bones. On a textural level, this dinosaur avatar sports a spare “cloud” motif to represent “scales”. Predictably, this dinosaur also has large white overlapping teeth. Despite this avatar’s biomorphism, the attention to detail is not as realistic as expected in conventional depictions of dinosaurs. However, the dinosaur’s biomorphic components are not abstract enough to resemble cartoon design. Unlike the generic attributes of the dinosaur avatar, the dragon avatars contain within their forms much variety relating to the researcher’s measurement parameters. In one instance, a dragon avatar had similar biomorphic properties as the Tyrannosaurus avatar (i.e. same cellular scale motif, maximum of three colours and two textures for the torso etc.) but was much larger. Therefore, the dragon’s proportionately large scale created navigational functionality issues. This was the only presented avatar that was large enough to be equivalent to an environmental space. Resulting from this size, this dragon’s prim-globules were much more pronounced. However, another dragon example provided visual evidence to support the assumption that scale itself does not necessarily determine the optical dominance of a particular prim-module.

Dubbed by Coakes as the “Rainbow Serpent” [Figure 14c], this dragon did not seem to have any wings as such. Composed entirely out of prim-objects, this dragon used differently sized spheres for its body and face. Based on a quad (i.e. crawling humanoid) core-form, and a texture-less gray template configuration; these prim-spheres randomly cycle through six contrasting colours. This serpent fore-grounded its modular components from the background exclusively using colour rather than scale. What is significant about this particular dragon design is that the colour-cycling seems to embed ornamental effects directly into the unadorned avatar form for a functional purpose. The function of the colour in this design is to draw the viewer’s attention towards each prim-component – thereby, showing the manner in which this dragon was constructed (i.e. entirely from prim-spheres). Perhaps intended as a novelty, the designer expressed her virtuosity behind this dragon’s design through its ability to open and close its mouth at pre-determined intervals.
Whereas the previous two dragons were designed to show the contrast of the avatar figure with the background (with the exception of the first avatar’s near-environmental scale); the last dragon caused this optical distinction to be blurred. Composed entirely out of three gradations from the white-to-black wavelength (the blackest gradations corresponding to the designer’s trademark black smudges), this feathered dragon blends in with the colour scheme of the research site. The only way this avatar can visually declare its autonomy as an avatar is through its rapid and realistic animated movements (i.e. the animation of the black smudges helps define the avatar’s outline) and the accentuation of its body-joints. This dragon also uses a particle aura not to further occlude the avatar’s form but to bring sub-conscious attention towards it. Beyond the optical ambiguity, this exceptional dragon design also expresses symbolic ambiguity. For example, it is not entirely clear whether the “wings” are wings at all but instead are tassels or peacock-like feathers. Culturally, dragons are usually designed to stand-out and incite a theatrical response from the viewer. Insectoid and larvae designs, however, have the expectations for concealment. Therefore, it is important to note that these next designs have unusually accentuated figures – considering their relative occlusion from viewers in “real life”.

The caterpillar avatar drew attention to the torso’s prim-construction (Coakes 2009. Focus Group 12:59). One reason behind accentuating the virtuosity of this caterpillar’s prim-design might have been to impress the viewer with the fact that the default anthropomorphic core avatar is well-concealed inside (Ibid). If this is the case, then there is a Modernist concern with “craftsmanship”. However as the presenter of this avatar, Coakes decided to reinforce Second Life’s cultural connoisseurship expectations, by leaving the caterpillar’s shape intact and only modifying the textures in Adobe Photoshop (Ibid: 13:00-13:01).

Clearly from the insectoid category, was a dragonfly avatar [Figure 14d]. This highly representational and realistic avatar possessed a visually distinct figure. This optical distinction was achieved by ensuring the dragonfly’s torso only had one prominent dark green colour (again, with the trademark black smudges). Likewise, the
dragonfly’s head was a solid green colour which helped to further accentuate the
dragonfly’s white eyes – thereby, clearly demarcating a head. Resulting from this design
strategy, this avatar’s figure was still distinct from the background despite its tiny
object-like scale. The dragonfly’s figure stood out through the rapid and realistic
rotating animations of its two pairs of semi-transparent wings. The next category deals
with other representational avatars that the participants considered “non-living”. That
is, avatars that personify representations of “inanimate objects”.

In this case, these two “non-living” avatars were a “magic book” [Figure 14f] and
a “toilet” [Figure 14e]. Relying heavily on fantasy-based mythological representation,
the “magic book” avatar could easily be mistaken for a prop used for role-playing
purposes. If discovered on a table, other avatars would accidentally treat this book as
an object. However, the designer imparted visual animism (personification) to this
object by having the pages open and flap like a bird when the user’s cursor keys cause
the “magic book” to move as an avatar. Only through animation then (which includes a
symmetrical yellow particle spray), does this artefact’s objecthood declare its
“avatarness”. Interestingly, the designer chooses to visualize this avatar’s figure agency
through fantasy-based representational associations. In other words, it is only when it
resembles a bird does the book avatar appear sentient and avatar-like. The toilet-seat
avatar, on the other hand, does not require any mythological associations to be
recognized. Designed as a parody of the avatar-ness of objects, this toilet-seat contains
no visible animations nor any other animistic means to visually declare its agency. With
a single colour and minimal shading, the components of the lid and the bowl are fused
into a banal representational gestalt. With “gestalts” in mind, the next category deals
with “abstract” avatar designs.

There is one particular design that bridges the ontological relationship between
representational and abstract forms. In this case, the abstraction in question visually
addresses the ambiguity of the user’s ontological autonomy. Known by Coakes as a
“Fairy/Rider” avatar [Figure 14g]; this avatar form is actually composed of two visually
distinct avatars. One is highly representational while the other is completely abstract.
Surprisingly, the humanoid fairy avatar is actually an ornamental object that “sits” on the abstract spherical halo. It is actually this green abstract halo-aura and not the fairy that is the direct representation of the user in Second Life. Thus, the designer has inverted the conventional ontological distinction between functional “avatar” and ornamental “object”. When perceived as a gestalt-avatar (as difficult as that is), both forms are clearly demarcated from the environment as distinct “figures”. This figural prominence is enhanced through random colour-cycling effects.

In a related instance, another spherical halo-avatar is presented by itself, without the fairy. Resembling the “transitional caching avatar” in Second Life, Coakes has claimed that this “comet”-halo not only pre-dates Second Life’s default loading form but is also a direct symbolic representation of “Will ‘o The Wisp” [Figure 14i].[317] Despite this blatant mythological association, the “wisp” appears quite abstract. For example, the central spherical prim – engulfed in a semi-transparent particle cloud - is small enough to resemble a commonly encountered object such as a “poseball”. [318] In extremely neutral or white environments, this white “comet” could easily blend in with the background as if it was functionally “invisible”. Another example of an avatar that appears optically abstract to the viewer but has mythological associations for both the designer and the participants is the “Teardrop Fairy” [Figure 14h].

Designed by Colemarie Soleil, the “Teardrop Fairy” is a perpetually transforming geometrically abstract avatar composed of six un-textured prim-spheres. To begin with, Soleil lodged a single tear-shaped prim right into the core shape’s central axis in order to represent the avatar’s “head”. Of all the presented focus group avatars, this one is the most visually mutable and diverse. For all its elaborate optical permutations, however, the design is still driven by a taste for minimal simplicity. For example, these prim-components, like the prim-dragon spheres, cycles through colours as a substitute for ornament. In this case, the colour-scheme is limited to the number of available prims (i.e. six). Although the Teardrop Fairy emits particle clouds, these clouds only cycles through three colours. The only slight variation here from the prim-dragon is that the Teardrop Fairy’s prim edges also temporarily changes shape into other unadorned
geometrical planar surfaces. These structural transformations, however spectacular they appear to the viewer are hardly maximalist. For example, the surface variations for each transformation do not exceed placement over six core prims and the textures never evolve beyond transparency gradations. Furthermore, most of the configurations actually remove core-prims from the central form. In some cases, these surface variations only occur over two prims. Therefore, visual simplicity is at the heart of even the most (illusory) opulent and dynamic “abstract” designs. The last category of presented designs deals with those transitional (usually deformed) avatars that accidentally occur when a participant switches from one avatar design to another.

7.2.1.4 Transitional Avatar Forms Presented During the Focus Group

All of the participants had to endure temporarily appearing as a transitional avatar form while presenting newer avatar designs. The optical differences between these avatar forms are not significant but there were some colour variations and differing deformation-levels amongst participants. With the former case, the colour seems to be derived from the averaged colour-tone of the transitioning core anthropomorphic forms. With the latter case, the degree of body deformation is contingent on the quantity and “physical gravity” of the objects and accessories that the wearer attached to the previous design’s limb-ports. In one rare instance and likely due to a concern with ornamental simplicity with the previously discarded form, Tyne’s rust coloured transitional avatar form was actually not noticeably deformed. Later on in the focus group session, Tyne’s avatar gradually deformed as the avatar designs become increasingly prim-intensive and non-anthropomorphic. The other participants however, embodied generic avatar deformations. For example, Chambers transformed into short flesh-coloured and black humanoid deformations while Coakes briefly assumed a skinny light blue humanoid deformation.
7.2.2 Focus Group Avatar Design Peer Reviews

“90% of avatars in SL are humanoids” (Chambers 2009. Focus Group 12:30)

The participants, although enthusiastic about presenting other avatar designs and describing structural details, did not seem interested in critiquing the work strictly on formal principles. Therefore, this section is not as intensive as the previous sub-chapters. Only with four avatars presented during the discussion of “avatars as art” (focus group), was “pure” abstraction emphasized. Even then, the participants made desperate attempts to personify these all of these forms through iconic resemblance (Camille 1996:32).

During this session, Chambers pointed out that most avatars culturally do not feel comfortable wearing non-anthropomorphic (i.e. de-personified) forms. In some cases, there is even a stigma against aligning oneself with non-anthropomorphic communities (Chambers 2009, Focus Group 13:41). Social acceptance is defined through clearly distinct anthropomorphism. Other than these points, the participants only critically distinguished their avatar presentations avatars by taxonomy. Consistently, the participants explicitly distinguished between “non-anthropomorphic” and “non-living” avatars. With this distinction in mind, the participants did make some miscellaneous remarks about personification. For example, Coakes made a representational analogy to the ways in which humans prepare their nude body first before dressing up (Coakes 2009. Focus Group 12:28). In addition, Tyne made a cryptic statement stating that, “humans personify abstracts to better communicate and understand, the same is true in SL avatar forms” (Tyne 2009. Focus Group 12:34). For this reason, the most ambitious avatar designers “tend to copy each other or to stick to popular culture (e.g. fashion shows/magazines, tv models, fable models)” (Chambers 2009. Focus Group 13:47). In conclusion, Tyne’s and Chamber’s latter claims directly informed the overall research findings.
CHAPTER 8: RESEARCH FINDINGS

Research evidence revealed one crucial finding and four subsidiary findings. At the highest level, hyper-modernist principles were not able to withstand Second Life’s pervasive predilection towards narrative. This crucial finding clearly indicated that Modernism’s conscious rejection of narrative functionality was incompatible with a pluralistic medium that privileged the expression of personal narratives. Regardless of the apparent level of visual abstraction, all participants chose to personify avatars as “characters” from mythological sources.

Subsidiary findings subverted two other “Modernist” hypothesis assumptions such as an asocial concern with abstract visual relationships and an emphasis on customization. On the contrary, the participants – with full knowledge of the Avatar Design Analytical Framework – designed their avatars to facilitate mundane (humanoid) social interaction while selecting from templates and purchasing components from others. With the latter, the participants directly equated “craftsmanship” with “connoisseurship”. Despite these transgressions, the participants sustained Late Modernist aesthetic concerns with high interface visibility (i.e. template-sliders) and visual simplicity (formal elegance) through ornamental restraint.\(^{319}\)
8.1 Narrative Tendencies – “Symbolization” and “Character”

Starting with the most significant finding, the participants chose to personify all avatar forms including those that would normally appear “abstract” or resembling a non-human object. This personification relates to Wölfflin’s “symbolization” (Chapter 3.1.1) concept about humanity’s natural tendencies to anthropomorphize all forms of “beauty”. Therefore, the participants’ symbolization of aesthetically pleasing abstract designs goes directly to a narrative interpretation of viewing avatars as “characters”. Even when the participants accepted their “role” as Modernist Artists and contemplated the Avatar Design Analytical Framework (See Chapter 5), most of the avatars from the Case Study displayed a high level of symbolic representation –relating to imported mythological narratives. In terms of representational specificity, no specific individual entity was faithfully reproduced with the exception of Gazira Babeli’s cloned avatar design.

The participants – even when role-playing as “Modernist Artists” - exposed personal sensibilities that closely mirrored the representational paradigm of the Renaissance period. During this period, “artists’ abilities to create images that were illusory and could tell stories” would “highlight the tension between illusion and truth, genuine and copy” (Fernie 1995 in Mccaw 2006:11). Second Life’s operative tension between the “virtual” and “real” encourages users to either import their own stories (an act of remediation) or create brand new ones. The participants’ apparent narrative purpose was to define their avatar selves as “genuine copies” of idealized or mythological reality. According to Vasari, the virtue of “connoisseurship” (though collecting and consuming) and the aims of visual “likeness” and “illusion” help “define
“the boundaries of beauty” in an emergent reality (Ibid). With personification (i.e. “characterization”), “illusion” and “connoisseurship” as the guiding formal principles, the participants designed avatars that emphasized narrative (Chapter 8.1.2), theatricality and social (cultural) functionality (Chapter 8.2).

8.1.1 Imported Narrative Bias derived from Pop-Culture and Mythology

“Designers create interesting avatars. Artists create interesting characters. [...] In a virtual world, there is no art without narrative.” – Domenico Quaranta, 2010.

The findings from the case study sessions indicate that the participant observation methods directly had an influence on the participants’ activities. However, due to an imported bias derived from pop-culture and mythological sources, all of the avatars that the participants had personally created were aesthetically unaffected by this methodological shift. For example, when the author role-played as an art-critic during the workshop, the participants’ avatars were highly representational (i.e. referring to recognizable humanoids, mythical creatures and domestic objects) and self-referential. As a confirmation, the participants had related even the most abstract avatars to their own imported historical narratives. In short, the participants treated their avatars as if they were story-world “characters” – including idealized or stylized characterizations of their “real” selves. These characterizations either related to their cultural upbringing and/or their personal sense of idealized or fantasy “self” in Second Life. In some cases, participants expressed their “fantasy self” through the visualization of mythological archetypes (Chapter 8.1.2). Confirming McCaw’s research, “...avatars are visual representations of our online characters” (McCaw 2006:9) since they embody “how we see ourselves, as a constructed identity in Second Life” (Ibid). Notably, one’s “constructed identity” does not always isometrically correspond with the participants’ “real world” appearance. On the contrary, many users intentionally assume an “alternate role” as “a way of freeing themselves from offline limitations of gender, race and class” (Book 2004:8-9). Since the “real” identities of the participants were kept
private from the researcher (for ethical reasons), there was no concrete way to ascertain which avatars accurately reflected their biological selves.

From a structural standpoint, all of the participants focused on tweaking subtle humanoid facial and body details instead of creating new non-anthropomorphic and other abstract avatar designs. Surprisingly, external designers created all of the non-humanoid avatars. The participants only presented these designs to the researcher during the critique and discussion segment of the focus group (DVD Appendix 3). Even then, the participants hesitated to attribute Modernist parameters to these showcased avatars. It was only during the text-chat discussion period at the very end of the focus group where the participants explicitly brought up the parameters and their affordances/limitations in Second Life. Ultimately, the participants consistently made mythological and other “real world” narrative associations with their avatars in Second Life – even if the avatar in question clearly possessed “abstract” and “Modernist” qualities (Chapter 7.2.2).

Some participants during the focus group seemed to have retroactively provided imported character associations after another participant had presented one of their colleague’s abstract or non-anthropomorphic designs (Chapter 7.2.2). Regardless of the order in which these associations were made, the characterization of avatars was a persistent activity. Therefore, these findings have reinforced rather than denied Second Life’s inter-disciplinary (multimedia) ties to the narrative-driven arts of Theatre and Literature. Despite their diegetic reliance on theatrical and literary associations, the participants did treat their visually avatars’ shapes with structuralist rigour. However, the participants did not apply this rigour for non-diegetic ends (i.e. detached optical contemplation). Rather, all of the participants relied on Modernist design principles to enhance and reinforce pre-modernist archetypal impressions. In this case, the participants suggest that the axiom “form follows function” (Chapter 5.5.1) applies to a diegetic context. Therefore, the (narrative) form is Second Life and what follows is the archetypal function provided by explicit “characterization”.

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8.1.2 High Narrative Functionality (Archetypes)

The findings clearly indicate a very high and persistent level of narrative functionality throughout the design and presentation process. Narrative functionality implies that artists design avatars for personal diegetic associations. Such explicit concerns with diegesis may be to “tell a story” through an avatar’s visual design. However, the nature of such stories does not need to be overtly fictional or even literary. Most often, narrative functionality applies to avatars whose visual design matches the “story world” of a particular “themed” region in Second Life or some external literary source. There are many ways to express narrative functionality in an emergent world such as Second Life. To some degree, extreme abstract avatar designs and situations will always be part of this particular virtual world’s “mythology”.

Unsurprisingly, “avatar designs, both visually and in terms of how they behave, tend to orbit archetypes of one sort of another” (Meadows 2008:45). The participants chose to explore the visual aspects of an avatar’s narrative functionality the traditional way – by using recognizable archetypes. As if to reinforce stereotypical perceptions of what Second Life appears to be, these archetypal “…avatars reappear in different genders and colour schemes, with wings, tails and some delightful new frocks” (Rackham & McCrea in Doesinger 2008:149). These types of accessories easily lend themselves to the convenient construction of angels, fairies, dragons, werewolves and other time-worn mythological beasts from occidental and oriental cultures. In particular, these participants focused on humanoid archetype-roles relating to the Warrior, Goddess, and Muse.327

In virtual worlds, the acceptable cultural boundary between fantasy and reality is permeable328 since they “defy strict categorization as games, serving more as extensions of reality than escapes from it” (Book, 2004:1). Second Life occupies a unique position
between gaming and “reality” in that avatars do not need to be escapist in design. Second Life’s residents will treat fictional “escapist” designs as conforming to a genuine secondary “reality”. This is because, at face value, Second Life’s avatar users are aware that the sharded self mediates its virtualization through avatar “masks”. The creation of masks and other avatar components are not always in the service of narrative functionality.

8.2 High Social/Cultural Functionality

“Avatars and textual bodies facilitate interaction, shape and solidify identity, as well as more generally mediate users’ engagement with the world”


Social (cultural) functionality, often conflated with narrative functionality, generally addresses the nuances of “mimesis” – rather than diegesis - as a trope to facilitate social communication amongst avatars. Further, mimetic design is usually not as dependent on story-telling and story-world conformity for a successful implementation. Social functionality is also primarily concerned with optical practicality. That is, colours, shapes and textures serve as “visual cues” for interaction, navigation and other ends that do not require reliance on “story” or “plot” elements for interpretation.

The majority of the avatars presented throughout the case study clearly possessed at least a few of these socio-cultural attributes. The ways in which the participants have visually enabled their avatar’s social functionality includes the conscious design of emotion (i.e. smiles), differentiation (figure over ground), and “personality” (non-verbal body language). All of which, relates to their personal definition of the virtual (i.e. ideal or archetypal) self. Designers personally identify with both their avatar self-as-character “and the other people” for recognition in one’s virtual community. Since one’s community peers represent both “the audience of the
story you are telling and as the other characters in the story” it is crucial that one develops a memorable character-role (i.e. a personality) to play (Quaranta 2010).330

8.2.1 “Emotional Cues (Gaze, Smiles etc)

“Artists have always been partial to the use of the human face in their representations, for they have seen in it (the versatile, mobile, expressive mimic) the best vehicle with which to convey their feelings. The Suprematists have nevertheless abandoned the representation of the human face (and of natural objects in general) and have found new symbols with which to render direct feelings (rather than externalized reflections of feelings).” – Kasimir Malevich, 1913 (Chipp 1968:345)

There is strong evidence to suggest that participants were designing their avatars as social vehicles to communicate emotional cues to other avatars. Unlike the Suprematist and Literalist pre-occupation with communicating emotional cues with abstract means, the participants focused on much more obvious representational cues – related to the humanoid form. For example, Chambers ensure that she used her pre-purchased “smiler” and “twinker” to accentuate the lips and eyes. As the smiler would ensure an archetypal representation of “fakeness” with her perpetually-smiling Princess avatar; the twinkler produced a glowing aura around the Princesses’ eye-region to draw more attention to her gaze. The participants generally spent a fair amount of time on the facial features as soon as the core body shapes and skins were determined.

8.2.2 Non-Verbal Body Language and “Personality”

“Archetypes, too, are created by behavior, as well as appearance... “

– Mark Meadows, 2008 (Meadows 2008:45)

Due to the participants’ reliance on template gestures and animations, it was relatively easy to discern the humanoid origins through the display of an avatar’s Non-Verbal Body Language. This is especially the case since a good portion of the presented avatars were humanoid in appearance. Clearly, the participants consciously sought to
attribute personified characteristics towards all of the avatars in the Case Study – including “abstract” and non-anthropomorphic ones. Even in these cases, the disembodied abstract avatars would animate or change colour/particle arrangement as if to visually respond to the social agency of other avatars. Most non-anthropomorphic avatars had customized limbs still attached to default limb-sockets that contained the original embedded humanoid animations for walking, running and idling. The power of anthropomorphic personification – even for inanimate objects and environments is quite ubiquitous in Second Life’s domain. In virtual worlds, an object, building or avatar can switch ontological roles due to some simple embedded coding strategies and thereby, always ontologically function on stand-by as visual “characters”.332

8.2.3 Optically Explicit Avatar Differentiation for Attention Purposes – Figures Over Ground

Overall, the figures were clearly distinct from their surroundings – even if these forms were non-anthropomorphic and abstract. Optically, participants optimized an avatar’s figure to be visually distinguishable from its surrounding environment and nearby objects. There were many cases where the participants ensured that their humanoid forms would be even more visually distinct than usual. For example, three of the participants during the workshop spent a large portion of time changing the colour of the skin and explored different racial and species types. This colour heightening and archetypal reinforcement was used partially as a way to stand out from a group of generic (white) humanoid avatars while still retaining anthropomorphic social functionality.

Through idealization and sexualization, their avatars could elicit (i.e. solicit) and sustain another avatar’s interest333 without visually alienating others. In Second Life, an avatar’s size is related to social intimacy providing that the scale corresponds to humanoid proportions. If the avatar is too small, it will resemble a coveted object that is too intimate for group conversation.334 If it is too large, it will resemble a public monument or architecture.335 Functioning comfortably in the moderate range of the
human scale by hovering in the middle of a generic humanoid torso, spherical abstract avatars also contained dynamic particles and colour oscillations as a way to prevent blending between their avatar form and the neutral gallery environment.336

8.2.4 Definition/Remediation of the Virtual Self

“Whether avatars mirror their creator’s offline physical appearance or not, their creation engages users in the process of online identity formation and they must decide how closely they want their virtual bodies to resemble their offline bodies”

The visual and text-chat evidence clearly indicated that – despite the immersive qualities of their archetypal characters – the designers had an ambition to idealize either their “real” or “preferred” selves. In this case then, sexualization and idealization were used to augment their “real” life characteristics so as to heighten their sense of narrative immersion (Bennetsen 2006). On the one hand, the participants chose to augment (idealize/sexualize) their own “real” characteristics so they felt as if they were participating directly in the virtualized narrative of Second Life without losing a coherent sense of self. On the other hand, the participants chose archetypal forms as a way to suspend their disbelief and feel as if they are genuinely living in a fantasy-based metaphysical space. With this choice, the participants have merged issues of narrative functionality with Social (cultural) functionality.

8.3 Cultural Reliance on other “Expert” Second Life Designers

The case study findings have shown that most of the participants’ customizable components such as skin, hair, clothing and avatar accessories were acquired from other “professional” designers. As a result, participants configured their avatar’s individuality around the tasteful selection of these pre-designed accessories and body parts (even skins), rather than through a brand new core design. This “template aesthetic” (Manovich 1995) mirrors Bartle’s informed assumption that “it's easier to create
something new by beginning with something old than it is to start from nothing” (Bartle 2004:632). It has become increasingly clear to the Author that the participants viewed each individual modular avatar component as its own re-usable commodity – independent of the gestalt theme of their core avatar’s shape. This finding confirms Meadows’ observation that a designer creates each component “so that it can be sold, or traded, or at least given away” (Meadows 2009).  

One significant point worth mentioning is that one of the participants has stated that if the mark of the prestigious author was not visible, no avatar user would purchase the designed item (Tyne 2009. Focus Group. 13:57). However, this participant was not entirely explicit as to the ways in which an author’s “mark” could visually reveal itself in the avatar’s design (Ibid). For clients (even for role-players), professional designers tend to favour heightened realism (Ibid. 12:12). Conversely, amateur designers seem more concerned with remediating fantasy archetypes -or at the very least - idealized/exaggerated remediations of “real” people (Coakes 2009. Focus Group. 12:13/12:16).

Ultimately, it seems that professionals attempt realism in order to increase the client’s perception of craftsmanship (Chapter 5.6). For amateurs, idealization of the body is the key and so the tools that lead to this convenient exaggeration process are much more visible. In terms of the more abstract aspects of the medium, there is no significant difference between professional and amateur avatar artefacts. Unless the client wishes to create an occluded (i.e. usually abstract) avatar for role-playing purposes, the figure is clearly foregrounded in most cases. Another aspect clearly foregrounded was the visibility of the interface itself.

8.4 High Interface Visibility (i.e. template sliders/inventory menu scrolling)

As evidenced in real-time observations, every participant focused first on using the template-sliders before resorting to any sort of customization. Immediately after the core body and facial features were shaped using the appearance morphing tools of
the sliders, the participants visually scrolled through their accessories from their inventory library until they found a suitable match. However, the non-anthropomorphic designs showed evidence of prim-customization. Having said this, the participants did not feel these designs to be representative of what was unique to Second Life’s “medium”.

Admittedly, some clothing and accessories seemed more customized than the avatars’ body shape and the facial features. Even with the most customized looking clothing, the patterns seemed to use repeated cells and symmetrical texture-mapping – which is also a common feature of Second Life’s interface. There were only a couple of minor instances where the template-sliders were not absolutely verified through the collected visual evidence. Overall, most humanoid designs in Second Life rely heavily on the translation tools within the template-slider interface for iteration and there is no need to customize these features outside of this interface. The only other way to detect Second Life’s unique interface visibility is by witnessing evidence of humanoid avatar deformations. Fortunately, there was ample evidence to support humanoid avatar deformation during the Focus Group session.

8.4.1 Humanoid Avatar “Deformations” – A Default Design Condition

“All appearances are deviances in the truest sense; triggers and toggles from central values on a series of scales”.

FIGURE 17. TOP (L-R): Thesis-Author demonstrating how a default avatar shape deforms when all slider-values are set to “0”. BOTTOM (a-b): Transitional deformations. (c) “Ruth” avatar worn by the Thesis-Author. (Case Study, 2009).
As part of a default state in Second Life’s avatar creation interface, the user starts off with a basic male or female humanoid avatar. This avatar’s core form, is actually flexible and pliable. In fact, every time a user adds an accessory or object to their avatar’s core form, the cumulative gravity of such objects are enhanced by Second Life’s proprietary in-world collision physics engine. As a result, objects and new avatars “physically” sculpts their contours and edges directly into the source form, making the core humanoid avatar shape increasingly “deformed” and “boneless” in appearance.

The significant research finding here is that these deformations were highly visible in the participants’ transitional humanoid forms – produced during the workshop. These texture-less humanoid deformations were also apparent during the presentation of non-anthropomorphic avatars. Participants had to temporarily assume a nude deformed humanoid avatar form every time they transitioned between anthropomorphic and non-anthropomorphic identities [Figure 17a-b]. Therefore, all of these non-anthropomorphic avatars were still designed around a warped anthropomorphic axis since all prim-attachments refer back to humanoid body parts (i.e. chest, neck, skull, spine, legs etc). These body parts were often compressed into a roughly humanoid geometrical shape. In this sense, all avatar compositions in Second Life are almost “modular” in that the prims are designed to “plug-in” to regions aligned with the deformed humanoid axis. According to Coakes, “if you’re making a non-anthro av, you still have to find the right deformations for the body, which all the prims will attach to [...] make the ending result” (Coakes 2009. Focus Group. 12:30). The deformed humanoid is Second Life’s essential transitional form – even when its humanoid associations have been diluted. In essence, this transitional form is the most ubiquitous avatar in Second Life. The world’s developers used these transitional forms as indicators to show the visual impact of template-sliding and “physical” impressions that accessory attachments make on the avatar’s base form. Symbolically then, deformed avatars represent the visual limitations of Second Life’s avatar creation interface.
The extremes of interface visibility also directly relate to the visual evidence of body deformation. For example, if a user resets all of the template-slider values to “0”, the avatar will look concave and deformed. This concave avatar resembles most of the humanoid deformations seen when users transition from one avatar to another and/or overload each prim-hub (i.e. “limb”) with penetrating objects [Figure 17]. Sometimes, the interface itself deforms avatar shapes without the direct application of objects or new avatars to the avatar’s core. When there is a temporary glitch in the interface, the avatar involuntarily transforms into a particular androgynous (but somewhat feminine) character known as “Ruth” [Figure 17c]. Second Life’s creators designed the “Ruth” avatar as a visual indicator to the user that their customized avatar shape is having difficulties being retrieved by the interface. In other words, “Ruth” is the avatar embodiment of the system error message. When an avatar user attempts to revert to their original humanoid form, the result is a partial deformation – since the original avatar assumes a portion of Ruth’s proportions. The deformed humanoid avatar form (including a pure texture-less nude deformation and “Ruth”) seems to be the clearest and most common visual indicator for representing the structural idiosyncrasies behind Second Life’s interface. Even when there was more freedom outside of the interface limitations to produce morphologically complex avatars, the participants consciously chose to minimize visual complexity through restricting decorative possibilities.

8.5 Minimalist Visual Simplicity (Ornamental Restraint)

Based on the final avatar artefacts, the participants were oriented in some degree towards the modernist ideals of formalist simplicity and minimal elegance. The evidence for this finding is the observation that most of their avatars’ body-part components and clothing relied on limited colour schemes and undifferentiated geometrical patterns. For example, most of their designs contained no more than four colours (two for the body and two for clothing). In addition, the participants usually employed undifferentiated geometrical patterns on their clothing.
This ornamental uniformity suggested a concern with minimalist composition and formal balance.\textsuperscript{341} Even when an avatar was polychromed, hardly any participant applied more than two visible textures. When accessorizing, the participants usually had no more than three ornamental embellishments. Furthermore, the case study data indicated that only two non-anthropomorphic avatar designs displayed advanced prim (i.e. flexiprim\textsuperscript{342} or invisiprim\textsuperscript{343}) usage. In most cases, the participants placed much more attention on the avatar’s body shape than with ornamentation and modular body-part sculpting.
CHAPTER 9: CONCLUSIONS

The conclusions drawn from this thesis research relate to the participant and expert data. Overall, the research findings raised some important issues relating to Second Life’s structural imperative for anthropomorphic avatar construction and the current predominance of Surrealist aesthetics in general. These findings catalyzed direct parallels between an avatar’s narrative functionality and the historical narrative of the Modernist discourse.
9.1 Conclusions Based on the Author Impressions of Participant/Expert Data

“Regardless of the kind of avatar, the driver of the avatar is involved in a classic tale of character development. The avatar is their character, the system is their story environment, and the events that happen to their avatar are all steps along a narrative chosen by the driver of the avatar”


This thesis concluded that the Author’s pre-occupation with strict Modernist visual parameters were only compatible with the “medium” of Second Life when viewed as a theatrical platform inhabited by personified “characters”. From a narrative standpoint, the three Modernist parameters of visual recognisability (i.e. issues of idealized representation), visual autonomy (i.e. optical foregrounding of the figure) and medium visibility (i.e immediacy of content, remediation of archetypes) became the most relevant discussion topics. This is consistent with theorists such as Quaranta and Meadows reinforcing their conception that Second Life – when considered artistically – becomes an ideal medium for characterization and theatre instead of advanced visual design.344

9.2 Second Life’s Structural Ties to Personification

Second Life’s interface has ensured that all designers must first consider the default anthropomorphic (humanoid) form before designing anything else. As noted in the Case Study, all of the participants briefly had to wear a transitional “deformed humanoid” avatar when assuming any other form – even purely abstract forms.
Designers are perpetually confronted with working with this core humanoid form, deforming it or occluding the form from sight altogether. With the latter decision, desires for anthropomorphic abstraction becomes structurally tied with illusionism since the form is still “physically” present behind the “outfit” of another avatar design. The humanoid core form never actually vanishes from the physics of the avatar’s movement. Rather, the core form is merely compacted below normal human proportions and/or superficially invisible. In fact, Second Life 2.0 has recently allowed the use of “alpha layers” to hide the avatar from sight more expeditiously than before (Chapter 10.2). If abstraction is ever to really enter the self-conscious avatar design realm, Second Life needs to embed non-anthropomorphic configurations directly into the avatar appearance editor (Chapter 1.5.3).

9.3 Late Modernist Issues with Surrealism

As the epitome of archetypal fantasy-play and theatrical representation through “personification” and “character”, Surrealist aesthetics poses the biggest challenge to Greenberg’s formalistic stance towards visual design in a virtual world. Surrealism, more than any other art-movement from the Modern era, maintains a pervading influence on Second Life’s artistic community (i.e. artists, designers and critics). According to Lewis, Greenberg “despised surrealism, a kind of neo-romanticism that was seeking (in his judgment) to return to the fictional notion of painting as a window into an imaginary world.” The main problem with Greenberg’s analysis was that historical Surrealism – in his time - dealt with painting as its primary medium. Unlike a painted canvas, Second Life’s fantasy-based narrative content exists on the screen as a window into a virtual world inhabited by fellow users. Painting on the other hand, depicts a mere “window into an imaginary world” populated by static representations of human-embodied presences. Greenberg reasonably could not have envisioned in his time the idea that framed figures (as avatars) could develop their own autonomous agency from their depicted surroundings and symbolically “breathe new life” into the Surrealist movement. Greenberg understandably restricted his critique of Surrealism to the inert materiality of the painted canvas.
Second Life’s audio-visual content more closely resembles an actual dream world than a mere representation of one. Ironically, “Literalism” in Second Life relates more closely to surreal (theatrical) representation than to anything non-referential. Unlike material reality, the Author has concluded that representations and simulations seem “literally” real to many residents in Second Life – even if these are instantiations of “idealized” or “fictionalized” reality. Therefore, Surrealism’s medium-specific (and content-specific) resurgence in virtual worlds is not something Greenberg would have immediately anticipated but in retrospect, appears historically inevitable. Despite Modernism’s successful efforts in other media to replace diegetic and mimetic narrative associations with pure optical exploration; the spectre of Surrealism in Second Life has subordinated all abstract phenomena to an emergent and post-fictional story-world. Within the confines of Second Life’s story-world, Neo-Modernist advocates have lamented that “the artifacts [sic] of SL, created by its inhabitants, have no underlying order, much less any heroic unity so characteristic of modernism” (Cheal 2007:206).

This research has clearly indicated – even on a local level – that Second Life’s creators have internalized the fundamentals of avatar design through an innate concern with visual simplicity, artefact connoisseurship³⁴⁶ and reductive ornamental schemes. In fact, their design outcomes and the theme of their peer-critiques represent the full narrative of Late Modernism’s decline into personified theatricality. This narrative of decline, however, does not entirely mirror Post-modernism’s beginnings. On the contrary, these concerns with heightened theatricality were only triggered by those who possessed a complete mastery of Modernist principles and affects (i.e. the Literalists). Ultimately, the effect of utilizing a Modernist framework in this research was to illuminate Second Life’s medium-specific tendencies towards theatre and personification. This thesis also addressed the complexities of Second Life’s Postmodernist mutability and plurality³⁴⁷ by revealing findings that point more specifically to theatrical issues associated with Late Modernism.
9.4 Final Analysis and Conclusions

This thesis research into Modernist principles of an avatar’s visual design eventually became a self-conscious narrative of its own. Taking into consideration the historical context (Chapters 1-3), the Author’s assumptions (Chapter 4), the measurement tools (Chapter 5), and the Case Study findings (Chapters 6-8); the Thesis’ narrative is remarkably similar to a condensed version of the Modernist discourse as discussed throughout Chapter 3. Modernism’s translatability for avatar design in Second Life only makes narrative sense when seen in light of Fried’s critique of the latent theatricalities inherent in Greenberg’s Late Modernism (Literalism) and Wölfflin’s reactionary personification of Kant’s “abstract” forms corresponding to “free” and “adherent” beauty. Unsurprisingly, Fried’s tendency to anthropomorphize abstract designs relates directly to Wölfflin’s personification of abstract forms. Therefore, the findings from participants, scholars and experts confirmed that there is a historical correlation between Modernist avatar design issues in Second Life with the decline of the Modernist discourse’s historical superiority (as applied to other media). Late Modernism’s narrative trajectory towards personification and theatre ensures that a Modernist reading of avatar design significantly addresses the limitations and opportunities of Second Life’s interface and cultural milieu.
CHAPTER 10: RESEARCH SIGNIFICANCE

This chapter deals with the overall significance of this thesis research and suggestions for future work. The significance of this research relates to the value of the Modernist discourse in general. Modernist aesthetic values are useful for guiding the practical legacy of next-generation virtual worlds.

10.1 - Value of the Modernist Discourse in Virtual Worlds

“Things that purport to be art do not function, do not exist, as art until they are experienced through taste. Until then they exist only as empirical phenomena, as aesthetically arbitrary objects or facts”.

-Clement Greenberg, “Avant Garde Attitudes”, 1968. (Greenberg 1968:1)

The value of using the Modernist discourse for application in user-generated virtual worlds such as Second Life stems from the necessity to derive a distinct narrative purpose for avatars outside of the ludic goal-based structures found in video games. Just as Modernist Art served to make artists more aware of the distinction between “art” and “life” through self-conscious “craftsmanship”, Modernism in Second Life allows visual artists to clarify the narrative functionality of their avatars. Like Classicism, Modernism was about setting design standards and maintaining structural integrity in order to transcend the “novelty” of recent innovations. Unlike many other design paradigms, Late Modernism primarily focuses on the aesthetic affordances of an artefact – whether it be an object, avatar or environment.348

The autonomous qualities of Modernist Art provide visual design clarity349 while at the same time, give the artist complete narrative (i.e. historical) freedom to create their own autonomous “Second Life”350. This narrative freedom is perfectly compatible with Second Life’s user-generated “story-world”. Avatar artists, with internalized
knowledge of these Modernist parameters (esp. visual autonomy and recognisability), can fully comprehend and express the ways in which their designs aesthetically impact another avatar user.

Since most casual users of Second Life surround themselves with this world’s own name-brand designer culture; an overall increase in aesthetic standards amongst the design community will gradually elevate the general impression that Second Life is a “serious” medium in its own right. If Modernism’s design parameters inform part of Second Life’s canonical artistic works, reviewers and users alike will recognize the world as much more than a role-playing game. Once viewed as a “serious” medium for identity construction and a prolonged community discourse, other user-generated worlds will also follow Second Life’s art-world example by seeking to attract artistic users of many stripes to their world – including Modernists. Structurally, the creators of brand new virtual worlds would also be wise to integrate Modernist’s rigorous aesthetic issues into the design of their avatar appearance editors.

10.2 - Practical Legacy

“Virtual worlds need a critical aesthetic. Indeed, they may need more than one: I’m considering them as an art form in their entirety, [...] there is plenty of scope for creativity in their component parts. A player who designs their own area to fit into the greater design may work to some more specific aesthetic peculiar to that task. What is right for designers doesn’t have to be right for everyone else. It does, however, have to be right for designers.”


Modernist aesthetics are not entirely about idealism and art-for-art’s-sake. In fact, the creators of Second Life have made the effort to listen to their artistic community’s design demands and have re-iterated their default interface accordingly. One recent example demonstrates how the Modernist contemplation of visual autonomy (i.e. figural distinction versus environmental occlusion) – as it relates to anthropomorphic constraints - directly led to a revision of the avatar appearance editor (Chapter 1.4.3).
In 2009, Second Life’s creators finally addressed the designers’ frustrations with having to hide a humanoid core avatar form (i.e. “base avatar mesh”) behind an array of invisiprims. In Second Life 2.0’s revised avatar appearance editor (Chapter 1.5.3 for 1.0), avatar designers now had the option of applying individual invisible alpha-layers over each body part before customizing their avatar further. Therefore, non-anthropomorphism (i.e. the lack of complete humanoid physical limbs) was now directly part of Second Life’s “medium”. Avatar designers now had additional control over the degree to which their avatar would be distinguishable from its environment. 2.0 also allows for interactive web-pages (including Adobe Flash) and videos to be directly applied as avatar textures. As a result, users in Second Life will experience their avatar designs in a much more hypermediated way than before. These added features expanded the affordances of avatar creation to mirror more closely Second Life’s user-generated philosophy where a designer can create anything that he/she imagines.

As Second Life’s former Senior Programmer, Ventrella foresaw early on how the embedded possibilities for non-anthropomorphism and pure abstraction in the avatar appearance editor would contribute towards user-centric freedom of self-expression. Ventrella sincerely believes that “avatars can and should take on many forms, as the self-expressing tools that they are” (Ventrella 2009). Ventrella’s democratic imperative for avatar design also extends into the speculative design of next-generation virtual worlds.

Future world designers may wish to build their default avatar appearance editor to include an additional template-slider for extreme height and width scales (i.e. really large and really small). Creators of a truly user-generated world may also allow the user to select from a custom quantity of configurable limb-ports (with a high upper-limit) for the purpose of post-anthropomorphic (and maximalist) modular avatar design. As some world creators intuitively know, an applied understanding of artistic paradigms leads to more effective social engineering opportunities because “any work of art presents cues that can elicit a particular activity from the perceiver” (Bordwell and Thompson 1997:66. Underlining by the Thesis Author). Therefore, the value of understanding the
aesthetic properties of “form” is to understand the visual prompts that can elicit particular activities of future users.

The challenge for world creators is to locate the artistic paradigm that most accurately mirrors the theme of their story-world. The developers of narrative-themed next-generation worlds, will often consider one dominant aesthetic paradigm to express their intended story-world. However, user-generated worlds in the tradition of Second Life require a multitude of different (and occasionally contradictory) design paradigms since the elicited activity is emergent and free. Modernism, at its core, is really an umbrella paradigm that acts as a neutral aesthetic standard for qualitative measurement against all other narrative dependent art-historical design philosophies. User-generated worlds contain within themselves a sobering axiom that states, “...just as in real life, SL has ruling aesthetic values, and just as in real life, the origins are not always clear...” (Almen in Doesinger 2008:132) To conclude, this research hints at additional ways where one can explore Second Life’s “original” aesthetic values in more detail.

10.3 - Future Work

In retrospect, it would have been fruitful to conduct further research with individuals outside of the group setting. With a wider ranging study, a researcher can better discern whether social relations really did inflect every aspect of an avatar’s essential design. However, this additional research was outside of the scope of this thesis topic. Other scholars may wish to expand upon this thesis topic by working with additional participants or with variations on the Neo-Modernist analytical framework. For example, other scholars may prefer to focus on the historical paradigms of the Neo-Classical period and/or the early Modern Artists (i.e. Picasso). Although Neo-Classicism and Modernity were touched upon in Chapter 3, this thesis admittedly focused on Late Modernism since the parameters were most easily translatable this way.

Remaining at the thesis level, another graduate student may wish to explore the same topic except with automated agents as the artefact under study – rather than
avatars. A thesis-level researcher may wish to focus only on issues relating to anthropomorphism in avatar design. In this case, additional interviews with reputable non-anthropomorphic avatars designers are essential. At the Doctoral level, Art-History scholars may wish to delve into additional chapters that explore the historical backdrop of Modernist avatar design in more depth. For example, a larger scale work would also discuss the Modernist influences on Video Art, Telematic Art, Net-Art, Digitally (Re)-Mediated Art, and non-visual media such as Literature.

From a methodological standpoint, a quantitative interpretation of this same study may be useful to the scientific researcher. For example, the scientist could order the parameters into numerical quantity values rather than as qualitative polarities. A quantitative researcher would need to study a large number of participants in order to see whether avatar design still progresses towards “character” and narrative functionality. Advantageously, an ambitious quantitative researcher could also sample participants from different subcultures within Second Life’s larger community such as the “Goreans” and “Furries”.

For the Author’s own upcoming Doctoral research, the current proposal is to narrow the focus upon the Neo-Classical and Literalist concept of the “sublime” (i.e. Burke 1756, Kant 1790, Boullee 1793, Schopenhauer 1818, Morris 1966, and Fried 1967). With this concept fully explored, the Author proposes to explore the possibilities of sublime virtual character design (overlays) in augmented reality mediations (i.e. mobile device, iPad etc).


**THEORETICAL FRAMEWORK:**


http://www.uqtr.ca/AE/Vol_14/modernism/Carroll.htm


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Heim, Michael (2003). The Digital ‘We’. Are we evolving into a trans-national planetary We, an online community of hope? Published in DotCopy, September 2003 Accessed online on April 09, 2010 at http://www.mheim.com/digitalWe.html


**AUXILLIARY THEORETICAL RESOURCES:**


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Ryan, Marie-Laure. Avatars of Story (pgs. 6 - 16), Minneapolis MN, University of Minnesota Press, 2006


TECHNICAL RESOURCES:


END-NOTES

1 Pliny was known for his recollections of a art contest between Photogenes and Zeuxis. “Zeuxis produced a painting of grapes which so successful that the birds flew up” into the painting... “Parrhasius then produced a painting of a curtain, depicted with such realism [...] that Zeuxis, excited by the verdict of the birds, demanded that the curtain be drawn back to reveal the painting [...] Realizing his mistake, with true modesty, he conceded the Victoria, admitting that while he had deceived the birds, Parrhasius had deceived him, an artist...” (NH.35.65) in Carey, S. Pliny’s Catalogue of Culture: Art and Empire in the Natural History. Oxford: Oxford University Press, 2003:109.


5 Known colloquially in science-fiction circles as “the metaverse” (Stephenson, 1992).

Even when progressing through SL's narrative through monetary accumulation, this value is not as prized as in other virtual worlds. This is because most avatars in your "community clique" will offer to freely provide most of the resources that an emerging avatar might require to qualify for sustained peer acknowledgement.

In 2006 for example, the performance art group "Second Front" – of which the author was a co-founder – entered into the so-called "combat sim" zones psychologically and even aesthetically expressed as an odd form of performance art rather than as an outward manifestation of generic ludic progress.

"Qualifying outcomes" was a catch-phrase invented by the author in 2008 for James Bizzocchi's IAT 810 class.

The joystick and other alternate controllers exist. These can be modified for use but have not been ubiquitous for chat-based virtual worlds since the early 1990s.

"Most avatars, ludic challenges can be found precisely through this limitation. According to Marguerite Charmante, if you "...accept a game as a set of rules, then the Second Life world is a game, the player is tied painfully close to the limitations of network traffic and access points." - Marguerite Charmante (Rackham & Mcreea in Doesinger 2008:152).

"Most massively multiplayer online games see their players stick around for a little less than a year, on average. But as we've seen, Second Life is not really a game. It has no fixed goals to accomplish, no scores by which to measure your progress through the world. Success is judged in the same way people judge success in real life: according to how much money, love, fame [...] you amass..." (Wallace 2007:300. Second Life The Official Guide).

The lineage of Habitat through Active Worlds proved that online worlds not [entirely] based on the fantasy orientation of Dungeons and Dragons were viable. They reinforced the idea that users could be tapped as incredible sources of innovation and creativity," (Ondrejka 2008:234).

In this game, players could kill off important characters from the original Matrix Trilogie and change the course of the in-world narrative in a persistent manner. http://www.mxostory.com/ / Accessed online on June 02, 2010.


The use of virtual force "literally" constrain an avatar in MMORPG games does not apply to the way Second Life works as a functioning social ecology. Second Life's combat mechanics are composed of ill-defined gore simulations, half-conceived (almost purely symbolic) "health meters" (displayed as a tiny throbbing heart icon with a vertical health-unit slider) and easily re-bootable avatar "deaths". Therefore, "conflict" within Second Life is so artificial, it is psychologically and even aesthetically expressed as an odd form of performance art rather than as an outward manifestation of generic ludic progress.

In 2006 for example, the performance art group "Second Front" – of which the author was a co-founder - entered into the so-called "combat sim" zones within Second Life and enacted a performance intervention titled "Martyr Sauce" [20] that involved the aestheticization of passive resistance.

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For this reason, artefacts in Second Life are sometimes called "avitecture".

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7 A "virtual world is a genre of online community that often takes the form of a computer-based simulated environment, through which users can interact with one another and use and create objects". Bishop, J. (2009). Enhancing the understanding of genres of web-based communities: The role of the ecological cognition framework. International Journal of Web-Based Communities, 5(1), 4-17.

8 Cultural materials are hardly abstract as they involve participant interactions that contribute to a virtual world's emergent economy. It is common to see virtual worlds embedding a mature user-interface for economic transactions.


11 The joystick and other alternate controllers exist. These can be modified for use but have not been ubiquitous for chat-based virtual worlds since the early 1990s.

12 "Most massively multiplayer online games see their players stick around for a little less than a year, on average. But as we’ve seen, Second Life is not really a game. It has no fixed goals to accomplish, no scores by which to measure your progress through the world. Success is judged in the same way people judge success in real life: according to how much money, love, fame [...] you amass..." (Wallace 2007:300. Second Life The Official Guide).


14 “Most massively multiplayer online games see their players stick around for a little less than a year, on average. But as we’ve seen, Second Life is not really a game. It has no fixed goals to accomplish, no scores by which to measure your progress through the world. Success is judged in the same way people judge success in real life: according to how much money, love, fame [...] you amass...” (Wallace 2007:300. Second Life The Official Guide).

15 ibid.

16 One notable exception to the "Uncanny Valley" effect as discussed in Chapter 1.2.3.2

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18 "(MU for Multi-user and * for anything that could conceivably follow)" (Bartle 2004:2).

19 I.e. much more than voice-chat or non-verbal communication (NCV).


22 Digital space (Onlive) Traveler, The Palace and Blaxxun's Cybertown are mentioned in Chapter 2.1.1

23 "The lineage of Habitat through Active Worlds proved that online worlds not [entirely] based on the fantasy orientation of Dungeons and Dragons were viable. They reinforced the idea that users could be tapped as incredible sources of innovation and creativity," (Ondrejka 2008:234).


25 A good example is the now-defunct "Matrix Online" MMORPG (Sony Entertainment, 2005-2009).

26 "Most massively multiplayer online games see their players stick around for a little less than a year, on average. But as we’ve seen, Second Life is not really a game. It has no fixed goals to accomplish, no scores by which to measure your progress through the world. Success is judged in the same way people judge success in real life: according to how much money, love, fame [...] you amass...” (Wallace 2007:300. Second Life The Official Guide).


28 Second Life’s Terms of Service (TOS) Agreement –

http://secondlife.com/corporate/tos.php


29 “Qualifying outcomes” was a catch-phrase invented by the author in 2008 for James Bizzocchi’s IAT 810 class.

30 The use of virtual force “literally” constrain an avatar in MMORPG games does not apply to the way Second Life works as a functioning social ecology. Second Life’s combat mechanics are composed of ill-defined gore simulations, half-conceived (almost purely symbolic) “health meters” (displayed as a tiny throbbing heart icon with a vertical health-unit slider) and easily re-bootable avatar “deaths”. Therefore, “conflict” within Second Life is so artificial, it is psychologically and even aesthetically expressed as an odd form of performance art rather than as an outward manifestation of generic ludic progress.

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32 For this reason, artefacts in Second Life are sometimes called “avitecture”.

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61 Expert Interview with Mark Stephen Meadows. Conducted between the author and Meadows via email on October 18, 2009.

According to Ondrejka, the amount of time users spent creating customized avatars, objects and architecture was equivalent to an

Since some of these "avatars" may in fact be automated agents or alternate accounts ("alts"), then the number of actual users logged at a given time may

be approximately 2/3 this number.

Thus,

Following Bartle's game-based phenomenology, historically speaking, "much of the vocabulary commonly used to describe virtual worlds is games-based. Thus, the human beings who interact with the simulated environment are known as players rather than users; the means by which the environment introduces goals for the players is called gameplay; the activity of interacting with the environment is referred to as playing." (Bartle, 2004:2)


Although the scope of this thesis cannot also include a detailed analysis of Teen Second Life, it is interesting to note that 87% of avatars had customized their appearance while 98% had "created objects using the creation tools" (Ondrejka 2008:239). http://teen.secondlife.com/ - Accessed online on May 17, 2010

http://www.twitter.com – Accessed online on May 18, 2010

http://www.facebook.com/ – Accessed online on May 18, 2010

58 Examples of avatars include at http://odysseyart.ning.com and http://museodelmetaverso.ning.com – both accessed online on May 18, 2010

According to Ondrejka, the amount of time users spent creating customized avatars, objects and architecture was equivalent to an "11,000-person content development team" (Ibid).


First Second Life has actually advertised a grand total of 15 (rather than 1.5) million virtual accounts as of September 2008. Based on Torley Linden's percentages from http://news.cnet.com/CountingtherealSecondLifepopulation/21001043_36146943.html these numbers are not accurate as they do not account for multiple avatar accounts generated by a single user nor are these numbers reflective of frequent users of Second Life.

Linden Labs simply added every user account registered in their database as a way to impress venture capitalists and the mainstream media. A more accurate number is to move the decimal place over to the left. That means that perhaps there are only 1.5 million unique "real" users" behind the keyboards in 2008 rather than 15 million. By 2006, there were about 3 million virtual accounts and therefore, apx. 300,000 unique avatars. Despite the small numbers, a fully mature art-world was still able to flourish.
62 “Virtualist works are characterized by elements and/or behaviours which are specific to virtual environments.” (Heffernan 2010). “Virtualism – A movement for a new world” – Raven Haalan (SL Name) – Posted on “Prim Perfect – Second Life Style for Home and Garden”, May 05, 2010 http://primperfectblog.wordpress.com/2010/05/05/virtualism-a-movement-for-a-new-world/ - “Accessed online on May 21, 2010

63 "It is precisely their Second Life-ness which makes them zones of purest design and art. The properties of a world such as Second Life lend themselves to exploratory movements in design.” (Rackham & McIner in Doingsinger 2008:153; Underlining by the Thesis Author)

64 This included but was not limited to: Lucastas’s Habitat, The Palace, Worlds Chat (Worlds Inc.), Active Worlds, Blaxxun Cybertown, Adobe Atmosphere, Furcadia, There.com, and The Sims Online...

65 Such as guided walkways with arrows, agents as avatar “guides” and plazas/lobbies with didactic signage.

66 According to Judd, it would not be a Modernist taboo to consider expressing aesthetic purity through colour in Second Life since, “...color is never unimportant, as it usually is in sculpture” (Judd 1965:3).

67 Even trained architects – when entering Second Life – see their architectural designs as being something other than the medium of “architectural”. Here is an example regarding the design of the Second Life Art Center [SLAC] ... "This project is an exploration of the application of the uniqueness of the SL medium to alternative architectural expression" (Denton in Doingsinger 2008:97).

68 The example was the author’s original androgynous avatar, "Wirxli Flimflam". – http://writeslíflimflam.blogspot.com – Accessed online on June 17, 2010. 

69 “A sculpted prim(itive) (or sculpy, sculpie, or just sculpt) is a Second Life 3D parametric object whose 3D shape is determined by a texture. These textures are UV maps that form the rendered 3D sculpted prim. Sculpted prims can be used to create more complex, organic shapes that are not possible with Second Life’s primitive system”. http://en.wikipedia.org/wiki/Sculpted_prim - Accessed online on June 01, 2010.

70 In the video-game World of Warcraft, for example, one could only acquire personality-enhancing accessories that matched their selected racial archetype [i.e. Troll Shaman] (http://sigibringer.blogspot.com). Furthermore, one could only evolve their avatar archetype’s visual design by gradually “leveling up” and finding new accessories, clothing, props and body enhancements through a tedious labour-intensive process known as “grinding”.

71 Interestingly, Active Worlds has been the closest ancestor to Second Life in terms of user-generated creation. However, it “lacks certain levels of customization, scripting and a functioning economy” (Ox 2005 in Jones 2006:18).

72 i.e. hardware/software/connection etc

73 World-creators designed default avatars to match: average computer processor speeds, affordable video-graphic accelerators, RAM and sufficient bandwidth for real-time content creation.

74 Formerly known as “OnLive! Traveler”.

75 “In an attempt to further enhance the organic feel of the Traveler experience, the decision was made to implement avatars as smoothly morphing 3D models that animate in response to the user’s voice”. (Dipaola & Turner 2008:3-4).

76 “Usually, as in the case of anthropomorphic avatars, this animation takes the form of synchronizing the movement of the jaws and lips to the phonemes used by the speaker. This creates the profound illusion of a human face in the process of producing speech. This animation helps the user to determine which avatar in the field of view is speaking and adds to the overall illusion of being in the direct presence of living, conscious creatures. This same morphing technique is used to implement blinking, breathing, changes in emotional state and other lifelike sequences to further enhance the subtle impression of life in the avatars.” (DiPaola & Turner 2008:3-4).

77 With the focus on the face, the world-creators found a way to develop a bandwidth flexible voice-chat system. According Traveler’s creator Steve DiPaola, “The basic hypothesis in implementing Traveler was that the use of human voice is the most natural way to carry on shared conversation. The implementation of an effective multi-voice audio environment was the primary design target.” (Dipaola & Turner 2008:3).


79 In other words, the world-creators simulated a “ludic” situation in order to have the avatars participate in “significant historical events” for marketing purposes. (FIGURE AVVI2001 Awards)


81 This entry-level avatar completely fit the stereotype with his/her Hawaiian shirt, tanned skin, “frumpy” physique, generic khaki shorts and “plastic” sunglasses [FIGURE AW Tourist Avvie].

82 “There are more male avatars than female, and it is interesting to note that there is a greater range of body types, sizes, ages, and styles of male avatars than female”. (Dickey 1999:59).

83 See http://www.activeworlds.com/products/galaxervers.asp - accessed online on June 04, 2010. Raw “customization” in Active Worlds had more to do with the assembly of pre-fabricated architectural components than avatar design. Alphahworld remains the largest public building area in Active Worlds.


85 A Google Scholar Boolean search conducted on June 10, 2010 revealed 6,860 results for “Second Life” + “virtual world”.

86 (i.e. Dena 2006; Yee & Bailenson 2007; Friedman et al 2007; Quaranta 2007; Menneke et al 2007, etc).

87 (i.e. Bardzell and Bardzell 2006 , Boellstorff 2008; Doingsinger 2008, etc)

89 A Google Scholar Boolean search conducted on June 10, 2010 revealed 520 results for “Sims Online” + “virtual world”.

90 A Google Scholar Boolean search conducted on June 10, 2010 revealed 437 results for “There.com” + “virtual world”.

91 A Google Scholar Boolean search conducted on June 10, 2010 revealed a cumulative total of 2,041 results for both “Active Worlds + “virtual world” & “ActiveWorlds” + “virtual world”. It is important to note that Active Worlds has been around almost an entire decade longer than Second Life.

92 Such as: http://www.academia.edu/People/Second_Life,

93 Linden Lab’s publicity engine allowed for many of the emergent narratives to circulate throughout the mainstream media outlets on the internet and the offline printed press. This press was fodder to express attention-grabbing media content. Part of Linden Lab’s marketing strategy included the hiring of professional freelance journalists from many of the mainstream media outlets such as Wagner James Au (“Hamlet Au” in SL) from the San Francisco Chronicle - http://inm.blogs.com/.


100 A similar Boolean search on Google Scholar (June 10, 2010) yielded these results: “Second Life” + “Avatar Design” = 102. Here are some of the results for avatar design in competitive virtual worlds and video games: ActiveWorlds (87), World of Warcraft (66), Everquest (33), Sims Online (10), There.com (13).


102 This is “her” avatar’s name. Seville’s real-life identity is currently unknown.


104 Since 2006, artists have repeatedly appeared in such art magazines as: Art in America, Flash Art, Art News and many others.

105 Helle Ihnen is “his” avatar name. Ihnen’s “real-life” identity has not been disclosed.

106 i.e. after a consultation session and a formal ethics approval from the University.

107 “Another important difference between traditional fieldwork and an ethnography of networks is the issue of access. A famous character constructed in traditional ethnographies is that of the gate keeper. Usually there was always one person who opens the field for the researcher, introduces her to the tribe/community, serves as mediator between tribe/community and ethnographer, and who carefully and step by step makes the researcher familiar with the hitherto strange environment.” - Wittel, Andreas (2000). ‘Ethnography on the Move: From Field to Net to Internet’. Forum Qualitative Social Research [online journal] – Vol. 1, No. 1, Art. 21, January, 2000. Chapter 4. From the Field to the Net. http://www.qualitative-research.net/index.php/fqs/article/viewArticle/1131/2517#g4 – Accessed online on May 27, 2010.

108 “A sandbox is a parcel of land which has been put aside for practicing building. Much like real sandboxes and the concept of sandbox games, creativity and chaos tend to emerge. Several sandboxes exist for specific purposes — such as the Weapons Testing Sandbox — but the majority of sandboxes are simply for regular building.” - http://wiki.secondlife.com/wiki/Sandbox - Accessed online on May 27, 2010.

109 The participants formally consented to a semi-public architectural plan in exchange for more creative freedom.

110 The “Flight feather is an object that is worn” on your avatar’s arm “...so you can fly higher than the traditional 300m limit (un-aided)” - “Flight Feather” posted by Moggo Oceanlane (SL name) on March 09, 2008 at http://moggooceanlane.blogspot.com/2008/03/flight-feather.html - Accessed online on May 27, 2010.

111 i.e. Impressionism, Fauvism, Expressionism, Art Deco, Magic Realism, Art Nouveau, Surrealism, early Futurism, Dada etc.

112 In other words, the artistic community was making great effort to define any sculpted material as a “sculpture” or a painted canvas as a “painting” and not as an expression of “poetry” or a piece of “music” (Lessing 1776 in McCormick, 1962).

113 (i.e. Lessing 1776, Greenberg 1940, McLuhan 1964, Manovich 2002)
"The subo colour for its own sake. According to Greenberg, gestural painting had

Apparently, Abstract Expressionism was the first such movement to develop a unified pictorial image without sketching in advance. Mirroring suspicion by arena for expressive activity rather than as a document of pre-conceived ideas.

Nostalgically returning full-circle to the proto-modern Impressionist era of the 1870s, this movement was characterized by the emphasis of flatly applied colour for its own sake. According to Greenberg, gestural painting had "spent its force, and the long run of cubist-inspired art, based on the lattice of line and structure, was nearing an end" (Greenberg paraphrased in Lewis 1998). Furthermore, "the lineage of Impressionism would be revived, and color, no longer subordinated to a structural armature, would again be sovereign" (Ibid).

The main thing wrong with painting is that it is a rectangular plane placed flat against the wall [...] the rectangle is [...] the whole shape" (Judd 1965:1).
137 “Most sculpture is made part by part, by addition, composed. The main parts remain fairly discrete. They and the small parts are a collection of variations, slight through great.” (Judd 1965:3)

138 The plural word “configuration” is used in place of “component” since Andre’s base was made out of isometric multiples (i.e. bricks).


140 These isometric units were composed of the same material. Andre had also followed the “truth to materials” aesthetic of the Minimalists. As a result, his material focus has always been “wood as wood and steel as steel... etc.” (based on Flores Jr. in Tuchman, P. “An Interview with Carl Andre;” Artforum 8, no. 10 (June 1970:37).

141 Smith is credited as one of the first Modernists to eventually rely on fabrication, rather than the “artist’s hand”. Smith ventured “...out of the arena of heroic faith and into the warehouse, the machine shop, the stockroom, where the high subjectivity of paint was traded for the deliberately banal certainty of hardware and the materials of industrial fabrication.” (Weiss 2006:xi).


143 Unlike Irwin’s and Turrell’s light-works, Flavin’s lamps were always exposed [Weiss 2006:ix].

144 In the Graeco-Roman era, temple buildings – despite their reductive tendencies – were quasi-representational in that the columns depicted the trees from the sheltering forest.

145 Boullee was also one of the first architects to declare that symmetrical configurations “represent order, and order is clarity” (Boullee 1793 in Rosenau 1953:86).

146 Robert Morris (1701-1754) is not to be confused with the Literalist Artist, Robert Morris (b.1931). However, they might be related and their aesthetic sensibilities are eerily similar to each other.

147 The first Modernist to employ glass structures for aesthetic ends was Bruno Taut for his “Glashaus” series (1914). Taut used glass a symbol of virtuality and idealism – it is possible that some artists in Second Life have been inspired by Taut’s work (Ursoy 2007:240).

148 I.e. Mondrian’s colleague.

149 “The few pieces of furniture looked like sculptures. Nothing was superfluous; everything was subordinated to the whole” (Blaser 1997:27).

150 Unlike Morris I and the Neoclassicists, Kahn fused the roles of the Landscape Architect and the main Architect into a unified creative endeavour.

151 “Much is made of Le Corbusier’s modular system of scales as being a link between Modernist architecture and mathematics. This is a dimensional rule [...] anchored on the height of the ‘standard man’ at 6 ft 183cm] [...]. A careful reading of this design system reveals that it [...] was never intended to be, a method for generating patterns. Le Corbusier himself did not apply it for surface design, preferring empty surfaces of raw, ‘brutalist’, concrete.” (Salingaros 2004:80).

152 Although Performance Art is now a valid medium in Second Life (see Second Front ca. 2006-Present), that particular discipline is too rooted in Postmodernist thinking to be discussed here. However, Modernists have discussed the essential qualities of Theatre. Therefore, only the medium of Theatre will be this will be the focus of this sub-chapter.

153 “Art degenerates as it approaches the condition of theater” because "Theater is the common denominator that binds together a large and seemingly disparate variety of activities, and that distinguishes those activities from the radically different enterprises of the modernist arts” (Fried 1967 in Fried 1998:164).

154 “The success, even survival of the arts has come increasingly to depend on their ability to defeat theater [...] For Theater has an audience – it exists for one - in a way the other arts do not; in fact, this more than anything else is what modernist sensibility finds intolerable in theater generally.” (Fried 1967 in Fried 1998:163).

155 This piece re-appeared as a variation known as “Two Columns” (1961).

156 Murray has been on-record to say that, “...even in the rare circumstances when we are invited to participate in a traditional narrative form, our participation is circumscribed in a way that generally limits our sense of agency” (Murray 1997:126).

157 Active Worlds was chosen for two reasons. The first reason has to do with the fact that Active Worlds is considered the direct predecessor for Second Life – as its interface, avatars, content creation tools and cultural scene is very similar. The second reason is due to the fact that – although there have been many virtual worlds in existence – Active Worlds was one of the first to have an established art scene. In fact, many of the artists from Active Worlds (and its de-regulated clone-worlds) eventually became pioneers in Second Life’s artstic community.

158 “Second Life’s Starfish Art Gallery is an in-world construction that closely resembles a real-world art gallery, complete with hardwood floors and white walls used for showing images in the traditional modernist manner of the display of fine art. However, a recent show contained a selection of artwork that included both the canonical world of Claude Monet and an adjacent section with images of popular cartoon characters like Donald Duck and Bugs Bunny. This display visually challenges traditional values of high and low art by contextually framing pop culture images as fine art and giving them equal prominent visual placement within the gallery space” (Book 2004:5).
Many avant-garde artists since the 1950s designed Modernist artworks with the direct intention of only being critiqued by highly specialized art-critics. Just as with Second Life's Chief-Technology Officer (See Chapter 5.6.1), Crockett has made an analogy to "molecular science" to examine "3D virtual worlds in their most basic yet complete manifestation" (Crockett 2006:45-46). Crockett's reasoning for this decision stems from her idea that avatar forms can be designed to be "essential to interactivity" (Ibid). Lastly, Crockett's focus on visual simplicity had to do with re-addressing how users have "overlooked" the essentials of design "in the rush to complexity" (Ibid).

Although Active Worlds had limited graphics capabilities, Crockett indicated that her aesthetic choice to reduce an avatar's form to basic monochrome geometrical shapes was intentional.

For example, when the "female" avatar is selected from a drop-down menu; a pink triangle shape (also un-textured) forms around "her" abdomen – indicating a dress. Furthermore, the male avatar's neck transforms from a thin horizontal pink line to a stretched and thickened neck pink beam.

On a side note, the user is prompted to become one of these avatars when entering Crockett's world. Therefore, the ontological boundary between self and other collapses. As a result, the user becomes part of the self-portrait and has the necessary agency to change the "representational" outcome.

Crockett's own off-world face as well as personally inspiring icons from popular culture (i.e. Freud and characters from the Matrix Trilogy) forms the content of these textures.

These web-pages either depict her real-world information or her artistic influences through diegetic and mimetic means. Some of these websites are also referencing the history of the medium – such as the history of some abstract worlds that existed before Active Worlds.

The quote of a colour world-portal usually receives an associated response in the form of a complimentary colour in the web-browser window.


Just as with Second Life's Chief-Technology Officer (See Chapter 5.6.1), Crockett has made an analogy to "molecular science" to examine "3D virtual worlds in their most basic yet complete manifestation" (Crockett 2006:45-46).

Such attributes towards narrative characterization and personification in avatar designs – abstract and representational – are eerily mirrored in the research findings of this thesis’ Case Study (See Chapter 8).


177 This piece also symbolically represents the ways that users perpetually compromise metaphysical uniqueness.


179 “One does not have to add any new content” (Manovich 1995:5).


182 As the troupe’s name suggests, the "Zero-G Skydancers" address Second Life’s metaphysicality through its lack of physical gravity. http://zerogskydancers.com/ – Accessed online on August 24, 2010.

183 “This could be particularly true of images created to be used during interactions in cyberspace, where some have argued that because users have the freedom to select avatars of any shape or morphology, then they have complete control over how they appear.” (Biocca & Nowak 2002; Fisher 1997; Haraway 1991; Turkle 1995).

184 Many avant garde artists since the 1950s designed Modernist artworks with the direct intention of only being critiqued by highly specialized art-critics. Such critics trained in the discussion of formal visual relationships (i.e. Greenberg). Artists began to design isolated Modernist artefacts without any consideration for its socially communicative properties. The only exceptions to this anti-social sensibility were peers that were equally obsessed with “objective” visual aesthetic standards. Because of this, many highly Modernist artworks were seen as “alien”, “antisocial” and “mute” by the general populace.

185 Throughout history, artefacts and projects from traditional artistic disciplines have quite often involved at least trace elements of social relations – depending on the scale.
Although Second Life’s space is proprietary, many virtual world interfaces are constructed in the same manner to facilitate a hypermediated experience. We are constantly reminded that “…games basically took the same approach […] they maintained separate text areas for information, descriptions, and communications” (Bartle 2004:2).
204 Second Life’s “medium” includes the proprietary tools (building, navigating and viewing), hardware (i.e. monitor screen, CPU, mouse, keypad, and graphics card), connection protocol (clients, servers, bandwidth), world browsers (currently 1.0, 2.0 or non-proprietary open platform versions) and/or limited cultural context that led to the avatar’s creation.

205 Many computers cannot process Second Life’s graphical capabilities. As a result, many avatars may contain many visual “ruptures” such as “slow frame rates, jagged graphics, bright colors, bland lighting, and system crashes” (Bolter & Grusin 1999:22). The test ultimately, is to determine whether these ruptures appear unique to Second Life’s software limitations or are an intentional component of the avatar’s visual design.

206 Among Modernist artists, the grid is a commonly used functional tool that harmonically orders spatial visual relationships. If Second Life’s avatar designers consider in-world narrative immersion (through abstraction) to be a higher virtue than “real life” narrative functionality, they can employ the grid as a temporary means to “explicitly reject a narrative or a sequential reading of any kind” (Krauss 1985:13). For those who believe that a sequential reading of avatar events in Second Life’s dynamic environment is unavoidable, Krauss also mentions the fact that the grid deeply immerses the user into a virtual space. Through its “…flattened, geometricized, ordered” (Krauss 1985:9-10) aspects; the grid “functions to declare the modernity of modern art” by emphasizing Second Life’s “antinatural, antimimetic, antireal” (Ibid) properties. If the avatar’s design is only about its proportional relationship to a grid, there would be no need to import an external narrative that dealt with anything other than the theme of abstract visual relationships. Therefore, the grid is an expedient tool to facilitate a user’s immersion into visual relationships - for their own sake. With this emphasis on visual abstraction, spatial proportion, and cognitive hyper-mediation; the grid contributes towards the “separation of the perceptual screen from that of the ‘real’ world” (Krauss 1985:15).

Designers that proportionally align their avatars according to grid-measurements are aiming for an abstract ideal of optical practicality.

207 This heightened awareness of the avatar’s mediation relates to Zimmerman’s concept of “meta-interactivity” (Zimmerman 2004). For Zimmerman, meta-cultural interaction “occurs outside the experience of a single text” (i.e. “world” - Ibid). This experience is hypermediated precisely because it compels the viewers to actively “appropriate, deconstruct, and reconstruct linear media, participating in and propagating massive communal narrative worlds” (Ibid). However, none of the avatar’s elements visually reinforce the uniqueness of Second Life’s avatar appearance editor, then the viewer does not feel compelled to compare mediations of its form with similar worlds. In this case, the avatar’s “immediacy” is temporarily preserved. While not immediately obvious to the viewer, the avatar designer can provide some visual cues that point to the avatar’s cultural origins in Second Life.

208 In some minor cases, issues pertaining to the existence of an avatar’s identity across various world platforms (i.e. “interoperability”) becomes more important than the persistent associations with Second Life’s native interface. A minority of avatars are designed to heighten a mediated awareness of the ways in which other virtual worlds emulate (re-construct) the same avatar identity. In this instance, the hypermediated awareness extends to virtual worlds in general and not just Second Life.

209 For Judd, the hardware that supported the content (i.e. the canvas) was just as important (if not more so) than the content itself (i.e. the painted figural marks). For Morris, “content” was simply populating the “visual field” with a “heterogeneous collection of substances and shapes, neither incomplete nor especially complete (except for the singular totality of figures or moving things)” (Morris 1969 in Harrison & Wood [Ed.] 1992:868). Out of this visual confusion, figural content was seen as something to be optically projected towards the surface of the picture plane as if it was at a higher dimensional level (i.e. 3D) than the surface of its hardware display (i.e. 2D). Bartle also pointed out how virtual worlds can simulate the impression of virtually existing in three-dimensions. Bartle said that “…all tessellated worlds are essentially 2D […] By fixing the camera (that is, the player’s viewpoint) at an angle other than directly overhead (say, at 60°), the impression of a 3D world can be given. This is sometimes referred to as a 2½D world.” (Bartle 2004:2) Confirming that the viewer’s perspective extracts three-dimensional content out of a two-dimensional space, Judd insisted that, “except for a complete and unvaried field of color or marks, anything spaced in a rectangle and on a plane suggests something in and on something else, something in its surround, which suggests an object or figure in its space, in which these are clearer instances of a similar world” (Judd 1965:2).

210 Philip Rosedale – the founder of Second Life - was directly inspired by this book when creating his own “Metaverse”. http://www.usatoday.com/printedition/money/20070825/secondlife_cover_art.htm - Accessed online on August 15, 2010.

211 The design is clearly representational and anthropomorphic because the user only needs to apply a minimal amount of cognitive effort to perceive the structural difference between the “avatar” and its “environment”. However, amongst a crowd of generic humanoid avatars, a designer can further visually distinguish their avatar from this social environment by resorting to a number of design strategies.

212 A large number of users in Second Life already rely on their avatars’ sexual attractiveness to stand apart from others. Therefore, sexualizing one’s avatar is no longer the most effective way to stand out from a crowd.

213 If the animations appear too rapid to be perceived as “organic”, the avatar might be mistaken for an automated agent.

214 Although a complete abstract avatar design would ensure a vast degree of formal difference from other avatars, if the avatar appears too abstract, it may resemble an object and/or architecture (depending on the scale). Therefore, such an avatar may be visually indistinguishable from its environment, and thereby ignored. Perhaps for this reason then, it is wise for the avatar designer to conserve some aspects of anthropomorphism for the sake of avatar recognizability. Any attempts of avoiding anthropomorphic associations through increasingly abstract designs entirely may not even be possible since “the material never has its own movement” (Judd 1965:3). Judd is implying that a form is inert and devoid of figural animism until a viewer cognitively projects
some of their own personified attributes onto it. By making an analogy with Modern sculpture, Judd reminds us that even with the most abstract of configurations, "a beam thrusts, a piece of iron follows a gesture; together they form a naturalistic and anthropomorphic image" (Ibid).

215 Nowak has explored the ways with which an agent can also be visually distinguished from an avatar but this is outside the scope of the thesis topic (Nowak 2004:7).

216 Formal occlusion in itself is not that alien to formal experiments in other media. For example, Etienne Louise Boullee’s funerary monument "Cenotaph to Sir Isaac Newton" (1784) explored the figure-ground tension by symbolically burying part of his geometrical structure underground (Boullee 1973 in Rosenuau 1953:90).

217 Some avatars may choose to conceal themselves from other avatars for the purpose of clandestine surveillance and/or as a practical joke.

218 Green resembles grass and plants. Blue resembles the sky while white is the default colour for Second Life’s walls.

219 An “invisible” avatar would still be visible because of the avatar’s name-tag. Removing an avatar’s name-tag is possible but not legal.

220 The creator of Second Life’s competitor, “There” and the former Senior Programmer for Second Life.

221 Personal Email interview with Jeffrey Ventrella – November 16-19, 2009

222 Kaplan’s story was also verified by Bruce Damer via direct Facebook correspondence on July 07, 2010.

223 Complete invisibility is technically not permitted as some hackers have figured out how to remove the hovering nametags from the Graphical User Interface.

224 Ibid.

225 Loosely defined as the “love of self-resemblance”, homophily “corresponds to the perceived degree of psychological similarity between the images and the human psyche, or the extent to which one is perceived to be similar to the perceiver” (McIvorsey at al 1975 in Nowak and Rauh 2005:5).

226 “Degree of Homophily” could also become a parameter. However, this would require deep analysis of each individual participant. In retrospect, it may have been useful to ask participants if any of their design decisions were homoplixic. If yes, then to what degree they may have been conscious of this desire for self-similarity. Perceptions of “homophily” might accidentally emerge from the limited avatar creation interface and economy/ecology of SL where things look similar out of convenience rather than based on a conscious design choice related to one’s visual manifestation of their inner/ideal personality.

227 “It has been in search of the absolute that the avant-garde has arrived at ‘abstract’ or ‘nonobjective’ art — and poetry, too. The avant-garde poet or artist tries in effect to imitate God by creating something valid solely on its own terms, in the way nature itself is valid, in the way a landscape — not its picture — is aesthetically valid; something given, create, independent of meanings, similars or originals” (Greenberg 1939:2).

228 “The nonrepresentational or ‘abstract’, if it is to have aesthetic validity, cannot be arbitrary and accidental, but must stem from obedience to some worthy constraint or original. This constraint, once the world of common, extroverted experience has been renounced, can only be found in the very processes or disciplines by which art and literature have already imitated the former. These [...] become the subject matter of art and literature. If, to continue with Aristotle, all art and literature are imitation, then what we have here is the imitation of imitating” (Ibid:3).

229 “...it is not so easy to reject the purist’s assertion that the best of contemporary plastic art is abstract. Here the purist does not have to support his position with metaphysical pretentions. And when he insists on doing so, those of us who admit the merits of abstract art without accepting its claims in full must offer our own explanation for its present supremacy” (Greenberg 1940 in Frascina 1992:60).

230 This is because abstraction self-referentially uses "art to call attention to art" (Greenberg 1960:2) and thus, will compel the critic to contemplate an avatar’s design on its own terms. Conversely, content-focused designers relied upon representational means such as realism and naturalism to dissemble “the medium, using art to conceal art” (Ibid). Representational content can also conceal the structural integrity of an avatar’s design.


233 David “Dancoyote” Spensley in “real life”.


235 Unless the avatar was meant to be “The Invisible Man”. Oddly, such blatant literary associations haunted the research findings in Chapter 8.

236 “Thus, when you look at a photo or realistic drawing of a face – you see it as the face of another. But when you enter the world of the cartoon, you see yourself” (McCloud 1993:36). Other evidence to support McCloud’s theories of iconic familiarity through abstraction appears on pages: 28 (frame 7) & 29 (frame 2).

237 The limitations of Second Life’s default interface raise aesthetic complications regarding anthropomorphic designs and their classification as being either “abstract” or “representational”. Klara Geher has pointed out that even if Second Life avatars "don’t have a human shape [they] will behave like humans" (Geher 2010). This is because Second Life’s creation team has embedded autonomic anthropomorphic animations (i.e. running, walking, idling) to mirror the default humanoid form. Without further customization, even the most visually abstract avatars “will have human properties” (Ibid). Perceived representations of anthropomorphism may in fact be unavoidable since “our imagination is terribly anthropomorphic and so are our creations as well” (Ibid). Therefore, these polarities are solely between issues of “abstraction” and “representation” and are not equivalent with binaries such as “unrecognizable” versus “recognizable” or “non-anthropomorphic” versus “anthropomorphic”. This thesis has subdivided the category for representation into various levels of additional visual recognisability in order to address these ambiguities.
238 In the Postmodern age, abstraction itself has paradoxically become a representational resource for designers in virtual worlds. For example, many Modernist designers would express an avatar using abstract ideas related to formal composition. Quite often, these abstract ideas about formal composition are hardly “unknown” as they have been borrowed from the Modernist canon and are therefore seen as “recognisable” forms amongst those familiar with this discourse. As such, a completely abstract avatar may be recognizable to some degree.


240 When comparing “abstraction” with “expressionism”, Heim goes on to clarify that “the two types suggest either formal patterns abstracted from matter or transmogrified colors and lines that reveal the artist’s individual feelings” (Heim 2001:5).

241 Personal Email Interview with Mark Stephen Meadows. November 17-19,

242 “It is beyond all question that no idea exists that does not derive from nature [...] I should add that we consider ‘beautiful’ those objects that most resemble the human organism and that we reject those which, lacking this resemblance, do not correspond to the human condition” (Boulelee 1793 in Roseneau 1953:86).

243 Psychology exists in both polarities because "the primary considerations of this aesthetic are psychological and/or social, as the physical is irrelevant” (Hefferman 2010). “Virtualism – A movement for a new world” – Raven Haalan (SL Name) – Posted on “Prim Perfect – Second Life Style for Home and Garden”, May 05, 2010 http://primperfectblog.wordpress.com/2010/05/05/virtualism-a-movement-for-a-new-world/ - “Accessed online on May 21, 2010

244 In many cases, these elements are integrated. For example, the limitations of graphical space and navigational problems are often bundled with bandwidth threshold issues. Bartle has noted that an avatar’s scale can be problematic if it perpetuates a “…conflict between the amount of space in the virtual world that characters appear to occupy (because of the fidelity of the graphics) and the amount they seemingly ought to occupy (because they represent people)” (Bartle 2004:2). In Second Life, avatar space is at a premium since the maximum avatar capacity caps at sixty per “parcel”. Furthermore, the more avatars present in a parcel, the more the bandwidth capabilities (aggravated by a user’s client-side internet connection) start to reveal their latency. On a more frustrating note, avatars with excessive ornamentation consume more bandwidth resources than unadorned ones and this greatly impedes smooth navigation, text-based communication and animated gesturing. Therefore, the structural limitations of Second Life’s: minimum hardware requirements, server capacity and the User’s client-side apparatus directly influence the functionality of navigation as well as socio-psychological communication.

245 Essentially, all “art is to be stripped down towards this end” of enhancing an avatar’s overall aesthetic value in favour of purifying “the medium” (Ibid). Each medium practically expresses “aesthetic value” through different channels. For example, when a traditional medium such as painting (and arguably, music) lends itself more to “imitation rather than communication” (Greenberg 1940 in Frascina 1992:62); the Romantic desire to “preserve the immediacy of the feeling” caused the artist to “suppress the role of the medium” (Ibid). However, with more communicative media, the artist could derive Modernist inspiration directly from “the situation or thing which stimulated it” (Ibid).

246 Despite this inconclusiveness, Modern artists have at least made the attempt to attribute more “practical” interpretations of “aesthetic value”. However, even with these noble attempts at clarity, the most articulate of these artists were often cryptic when stating their intention. For example, Mondrian believed that the perpendicular position in visual media expressed a “permanent relationship” which “plastically affords stability” (Mondrian 1919 in Braziller 1995:26).

247 Some template avatar accessories – although ornamental in appearance – are designed with structural, navigational and even narrative functionality in mind. For example, a commonly distributed object known as the “flight feather” is a small white-gray-brown feathered armband. If worn on the avatar’s arm, the avatar can defy Second Life’s default gravity conditions and fly higher up into the sky than usal. The primary reason why this armband resembles a stylized feather was so all of Second Life’s users would come to recognize this object on their arm as an iconic symbol representing the mythological powers of flight. Hardly an ornamental function, a seasoned avatar user would recognize the repeated feather motif as a structural story-world reminder that he/she can acquire additional flying capabilities.

248 Dickey pointed out that camera controls like these appeared in Active Worlds as well. Active Worlds had an “eye” icon to activate the camera controls.

249 One of the ways Traveler enabled this immersion was to ensure that the scale of the avatar’s disembodied head frequently occupied a large portion of the user’s screen-space. From this perspective, the user paid much more attention toward the avatar than its virtual surroundings. This direct interlocking of the user’s gaze with an avatar helped to “reduce uncertainty about others” (Nowak 2004:4-5). This face-to-face interaction also allowed users to “predict future behaviour more effectively as well as understand motives and context for current or past behaviour” (Ibid). As a result, Traveler’s avatars are some of the most socially functional avatars designed to date. This is because a user’s attractiveness towards avatars increases once “uncertainty about them has been reduced” (Berger & Calabrese 1975; Clatterbuck 1979; Infante et al 1997).

250 With Greenberg’s historical analysis, ornament had – at one time – its own unique affordances. “Visual decoration” was recognized for its idiosyncratic “patterned” and “repetitive” qualities as well as for “the blank flatness which relieved” the redundant effects of these qualities (Ibid). In the Modernist era, ornament has since played a subordinate aesthetic role as a frivolous embellishment upon a much more “autonomous” artefact. Modernist Critics epitomized by Greenberg, openly pitted decoration for its “merely pleasing” and “merely embellishing” aspects because “the ‘functional’ logic of Modernism leaves no room […] for such ‘mereness’” (Ibid).
251 For Neo-Classicists, ornamentation itself was personified. Since "...every Spot assumes a various face..." (Morris 1742 in Leatherbarrow 1985:50), decoration was seen to have its own "character" and this would lead ornamental designs towards considerations of narrative functionality.

252 On a cultural level, re-colouring a humanoid avatar's skin often indicates a perceived change of racial characteristics and this again, relates directly to Postmodernism and narrative functionality.

253 The most advanced designers would be capable of creating their own automated design tools. These tools – once implemented - would help alleviate the tediumness of the design process. In order to create such tools, the designer would need to know advanced LSL scripting (Chapter 1.5.1). Furthermore, the designer would also need to know which particular aesthetic outcomes are reliably successful, even when automated. Bartle has pointed out that a concentration on tool-development - instead of raw creation - tends to transition the "artist" into that of a "designer" (Ibid). As far as Bartle is concerned, the exclusive focus on rapid-design prototyping tools “can be regarded as part of the designer's craft” (Ibid).

254 This is the especially the case if this designer has become a recognized name-brand.

255 Using the nanotechnology metaphor, Ondrejka considers these geometrical "building blocks" to be “the atoms of Second Life” (Ibid). Since these atoms are “virtual” and not “material”, they do not involve the same issues with expense, risk and precision (Ibid). Therefore, it is much easier to design complex avatars entirely “from scratch” than it is to do the same thing in “real life”.

256 Most designers use superprims as objects. When behaving as objects, these superprims are temporarly persistent which means that they can remain in the space they were built in until the owner of the space chooses to have them removed.

257 In Second Life 2.0, one can also texture any side of a geometrical object with their own photo or video texture. However, 2.0 did not exist at the time of this thesis research.

258 This somewhat democratic culture of collaboration in Second Life has flourished since “access to the tools reinforces the culture of amateur-to-amateur education” (Ondrejka 2008:230). This does not exclude the fact that a rarified culture of “expert” and “name brand” designers has also become part of Second Life’s mainstream society.

259 “The high demand for virtual land, houses furniture, clothing and avatar accessories results in a brisk trade of objects along with a plethora of in-world stores, malls and flea markers. This can be a significant turn-off for gamers visiting social worlds, who often deride them as ‘online shopping malls’” (Book 2004:4).

260 Ondrejka acknowledges that this inflation of goods is artificially disproportionate with the services rendered. He says, “...like the real world, creations built by the application of time, effort and motivation are worth more than their constituent parts. In Second Life, primitives have almost no cost beyond the computing, memory, and bandwidth resources they consume. For individual temporary primitives, these costs are effectively zero. As primitives are combined and left in the world, their costs increase” (Ondrejka 2008:237).

261 With both extremes, communicative functionality seems independent of either aesthetic. A maximalist designer can either communicate an idea to a viewer by illustrating every an avatar’s nuance explicitly or distract the viewer with details. Likewise, a minimalistic designer can either communicate an idea clearly without unnecessary distraction or leave out too much visual information/explication – from which, the avatar could appear “mute” or “mysterious” to the viewer.

262 Visual evidence of symmetry and of any serialized ordering of sequential modules - such as those found in 20th century music - would be tolerated as an ordering principle for some maximalist designs. However, the researcher views the explicit usage of asymmetry or poly-symmetry as being even more maximalist than a homogenous gestalt composed of many visually diverse components.

263 Many - but not all - Minimalist visual “relationships” are “subordinate to the single form” (Judd 1965:5). These relationships are usually “primordial” in that “...one colour only exists through another [...] and position only through another position opposing it” (Mondrian 1919 in Brazilill 1995:25).

264 At the very beginning of this case study, the researcher virtually “delivered” a note-card to each participant explaining the Modernist art-historical discourse. In some cases during the workshop, the researcher asked participants to pose in particular ways for visual-documentation purposes.

265 http://wiki.secondlife.com/wiki/Noob

266 During the focus group, a detailed discussion about the viability of the Modernist parameters took place in the text-chat channel.

267 For quantitative researchers, the role-played insistence on passing around surveys for evaluation purposes is often met with community alienation.

268 For any researcher of a user-generated virtual world to be viewed by his/her subjects as a “contaminant”, the implications of this would take on a very real significance since most researchers study these worlds for auto-ethnographic reasons. That is, they see themselves as already part of this culture – or at the very least, as eventually joining this culture at some point in the future.


270 i.e. Maya, 3DStudioMax, and SketchUp.

271 http://www.usqtr.quebec.ca/EA/Vol_14/modernism/Carpenter.htm

272 For additional text-chat evidence, email jot@sfu.ca

273 http://www.facebook.com

274 See the “Data” sub-chapter for a list of these parameters.
The in-world consent form clearly indicated that the research was conducted in a virtually “public” space and that all chat-transcripts were automatically cached by Second Life’s main servers in San Francisco.

The participants were informed that as citizens of Second Life, they have already agreed to these conditions when they first signed and approved Second Life’s Terms of Service (TOS) agreement. http://secondlife.com/corporate/tos.php


Experts were interviewed through an iterative process of email-correspondence.

Second Life is given special attention because it follows a content-creation model that begins with the individual avatar user, rather than through content that has been pre-fabricated by the corporate creators of the world.

The sixth scheduled participant, Indigo Mougin was unable to attend this workshop due to last minute technical issues.

This information is based on direct correspondence between Ember Coakes and the Thesis Author that took place on October 13, 2009.

Workshop – [13:26] Ember Coakes: I think I’m going to try and make one of my devotional avatars, but this time, I’m going to make it for a “goddess of Second Life”...

Ibid.

Workshop- [13:26] Juliet Chambers: since SL is born in the US and inhabited by a very large number of Americans, it’ll be American Cinderella at the [sic] Ball


Workshop - [15:18] Juliet Chambers: I’ve tried to make Juliet look like me but I never could

In retrospect, Setsuko probably did not meet the basic English requirement although the initial email responses for the “Call for Participation” seemed articulate enough.

Workshop – [14:44] uuuuu Heliosense: are you saying that you use external software or process to sketch out your dress design in advance before going into SL?

[14:44] 3star Tyne: yes very advanced, color pencil, old computer paper

Workshop - [15:00] uuuuu Heliosense: you are wearing bangs from one hairpiece and some long curly attachment hairpiece

[15:01] 3star Tyne: um, no the base is solid prims and the long strand you are seeing are alpha textures i painted.

[15:01] 3star Tyne: this was a womans wig i made called bombshell

[15:01] 3star Tyne: but its about to become a male wig, called sexy man number 3


[15:19] 3star Tyne: i look like ember

Workshop – [13:04] Juliet Chambers: and, as a byproduct, I can experiment with various representations of myself

[13:07] Ember Coakes: Juliet - I find that most of my avatars represent “something” about me, or else I feel like I’m lying, somehow

[13:07] Ember Coakes: I feel like I’m misrepresenting myself

Workshop - [12:49] Ember Coakes: like Freya, Ostara, Apollo, etc.

[12:49] Ember Coakes: I have... hmm, at least 50

[12:49] Ember Coakes: Most of the rest of my avatars are high fantasy.

[15:03] Juliet Chambers: maybe this beauty could marry prince charming

[15:33] 3star Tyne: yeah i can be white witch, i lovees her

Workshop - [12:52] Ember Coakes: Do you have a focus? Fashion or full avatars or such?

[12:53] Ember Coakes: And you have nice animation - I often overlook the animation :/

[12:53] Juliet Chambers: it’s inspired by a cartoon cahracter

[12:53] Juliet Chambers: anims are 30% of the personality

[12:53] Ember Coakes: it’s true

[12:53] Ember Coakes: I’m usually going for still pictures when I’m done, so I don’t worry too much about the anims

[12:54] Juliet Chambers: skin + shape are 50%

[12:54] Juliet Chambers: hair, clothes and accessories are 20%
Ember Coakes: But I do admit, I consider avatars the clothing the people wear, not their actual identity, so you have a strong point about the interaction being separate.

Ember Coakes: This form, the shape I'm futzing with... it's still well within human... I mean, nobody actually has eyes THAT big. I think, but overall, the appearance isn't remarkable to SL, is it?

Ember Coakes: But most folks in SL prefer to look like idealized humans.

Ember Coakes: By default, I admit I start from my own idea of an idealized female form, and then modify from there, unless I have a concept in mind that clearly starts somewhere else.

Juliet Chambers: oh, the mouth must convene a very peculiar idea.

Juliet Chambers: that it's ripe and ready for kissing.

3star Tyne: wooo that dress is cut kwoww in the back.

Ember Coakes: kok at me, so dull between two gorgeous model women.

3star Tyne: nooo you kok; good, you kok real.

Ember Coakes: nod: I have a collection of Me avatars, most of which are fairly slim. I have one based on myself in highschool from old prom photos.

Ember Coakes: I have a collection of color skins, very useful when I'm doing concept avatars.

Ember Coakes: I kind of collect color skins, they're very useful when I'm doing concept avatars.

Ember Coakes: I have several of her prim hairs.

3star Tyne: omg i love that hair.

Ember Coakes: This is just my test form, which is proportioned to fit most hair and clothes sold as-is. I start here 'cause it's my blank slate.

Ember Coakes: There's a lot of stuff you can't see, like me sifting through my inventory, which is very organized.

3star Tyne: omg i love that hair.

Ember Coakes: I have several of her prim hairs.

3star Tyne: omg that wonderful sweetie, i love the skin and the eyes!!

Ember Coakes: You, of course, look like you just created your account an hour ago, which I'm sure is deliberate.

The researcher's own "noob" avatar was the only specific avatar design subject to criticism by the participants.

Experts were interviewed through an iterative process of email-correspondence.
306 For the record, Setsuko and Mougion had logging issues and could not participate properly in the focus group session. Therefore, only the remaining three participants presented additional avatar designs.

307 One anonymous participant presented a clone of the “noob” researcher avatar – but with a yellow shirt. There was no significant discussion about this avatar in the focus group since the “noob” was already discussed during the workshop.

308 This belt was so loose, it did not even touch the avatar’s form. Therefore, the transcendence of virtual gravity is symbolically represented here.

309 Tyne has admitted to being a painter in “real life” and has made a correlation between his paintings and his custom avatar textures...

Focus Group - [12:49] uuuuuu Heliosense: the visibility of the medium seems concealed

[12:49] 3star Tyne: i use warp akit
[12:49] 3star Tyne: its simular to my painting style with acrylics in RL
[12:50] uuuuuu Heliosense: ok
[12:50] uuuuuu Heliosense: so painting influences your design?
[12:50] 3star Tyne: um well, im a painter.


313 According to both Tyne’s and Chamber’s testimony, this avatar was designed by “Azumi”. The avatar’s hair and accessories were designed by “Alixa” and “Booperkit” (Chambers 2009. Focus Group 13:14). The participants did not disclose the year of the avatar’s design.

314 Focus Group - [13:13] 3star Tyne: her hair is paper
[13:13] uuuuuu Heliosense: do you know if the character is meant to represent anyone?
[13:13] Juliet Chambers: I don’t really know... a buikling wooden avie?
[13:13] 3star Tyne: and she is metal
[13:14] Juliet Chambers: it was made by Alixa and Booperkit (the hair)
[13:14] Juliet Chambers: yes Ember, the plywood ever prim is made of
[13:14] Ember Coakes: Eh, the plywood texture prims start with, yes

315 Ibid.

316 Since it is unclear with designer made this avatar, photo-documentation has been with-held for copyright reasons.

317 Focus Group - [13:09] Ember Coakes: Heh, the fairy isn’t me, it’s my rider, I’m the willowisp!
[13:12] uuuuuu Heliosense: the comet reminds me of the rezzing avatar...the glowing hak...might that be the essential form?
[13:12] Ember Coakes: This actually pre-dates that
[13:14] uuuuuu Heliosense: Ember, is there some form behind the wisp other than the circle?
[13:15] Ember Coakes: UUU No, the willowisp is essentially a ball of light, both here and in mythology

318 “A poseball is a common kind of scripted object in Second Life, appearing as a round colored sphere. There purpose is to play an animation on the avatar that sits on them.” – Accessed online on August 30, 2010 from Second Life’s official Wiki - http://secondlife.wikia.com/wiki/Poseball

319 This finding unexpectedly conflated two parameters - "Levels of Visual Diversity" (Chapter 5.7) and the "Degree of Practicality" (Chapter 5.5).


321 “When the purist insists upon excluding ‘literature’ and ‘subject matter’ from plastic art, now and in the future, the most we can charge him with off-hand is an unhistorical attitude” (Greenberg 1940 in Fracina 1985:60).


323 Throughout the real-time creation portion of the entire case-study session, there was no visual evidence to suggest that the participants had created their own abstract and/or non-anthropomorphic designs.
324 Some minor exceptions to this fact were the result of participants “tweaking” abstract designs made by others (usually their friends).
325 Once the author had assumed a more active critical role during the focus group session, a role-played Modernist hierarchy between the artist (participant) and critic (also participant) took shape. As soon as the avatar artefacts were re-contextualized as by the author/researcher/critic as “modern art”, the participants felt compelled to showcase those aforementioned abstract and non-anthropomorphic avatars made by their colleagues.
326 This finding would probably have been seen by Greenberg as a “contaminant” of the theoretical framework.
327 It is possible that these archetypes were subconsciously inspired by Bartle’s gamer archetypes: the “Achiever”, the “Explorer” and the “Socializer” (Bartle 1996).

328 “…in virtual worlds which bring together players from multiple cultural backgrounds, a participant in a virtual world brings their own cultural preconceptions about those other cultures across the boundary into the world while playing. The term magic circle has been used to describe the imaginary barrier between the virtual world and the real world. The fantasy environment of the virtual world is protected from the intrusion of real life by this magic circle, but practices such as the sale of virtual items and virtual currency for real life currency challenges this separation while reinforcing the notion that objects in the virtual world have real life value.” (Song et al, 2009). “Interaction Between Real-World Digital Environments and Virtual Worlds” (2009). Patent application number: 20090207608 Appendix: Background of the Invention [0012] - Accessed online on August 26, 2010 from http://www.uspto.org/patents/app/20090207608

329 “…what I thought is that I couldn’t simply say, “there is this ‘me’, which is unchangeable, and there are ‘others’, who react to this ‘me’, and they’re unchangeable — we just employ different masks depending on the environment”. That’s just half the truth. In reality, however, it became quite apparent that this ‘self’ — my own and the ones of all the others — is totally dependent on the environment and the people in it. We all wear masks depending on whom we’re with.” – Gwyneth Llewelyn, 2010. Accessed online on August 26, 2010 from Llewelyn’s blog posting “Transcendence through Second Life.” http://gwynethlllewelyn.net/2010/05/26/transcendence-through-second-life/2/

331 What the Literalists might have been doing all along (maybe unconsciously) was to expand the anthropomorphic gaze across an entire planar surface (the entire object) — thereby, increasing its personified yet sublime identity as a pareidolia-induced “presence”. In other words, the entire gestalt object/entity elicits a gaze across its unadorned yet seemingly boundless surface. The anthropomorphic qualities of its “character” encompass the entire material surface and relates once again to a highly subjective theatricality.
332 “Let us consider an object. Our first reaction is, of course, the result of how the object affects us. And what I call character is the effect of the object which makes some kind of impression on us” (Boullee 1793 in Rosenau 1953:89).
333 “For Judd, as for literalist sensibility generally, all that matters is whether or not a given work is able to elicit and sustain (his) interest. […] (Literalist work is often condemned – when it is condemned – for being boring. A tougher charge would be that it is merely interesting). The interest of a given work resides, in Judd’s view, both in its character as a whole and in the sheer specificity of the materials of which it is made” (Fried 1967 in Fried 1998:165).
335 “A simple form like a cube will necessarily be seen in a more public way as its size increases from that of our own” (Ibid).
336 Minor exceptions to this rule include a book avatar, a toilet-seat avatar (which was also white to match the gallery background), one dragon design (only visible through movement) and an invisible avatar where the figure literally vanished from sight.
337 Email Interview with Mark Stephen Meadows. November 17-19, 2009
338 …or wishes to remediate an object as an avatar from pop-culture such as the USS Enterprise from Star Trek, for example.
339 “All these creations of the imagination are misleading. What do we perceive in such works but natural objects – exaggerated and disfigured it is true – but natural objects all the same. Does that prove the existence of an art based on pure invention?” (Boullee 1793 in Rosenau 1953:85).
340 “Exact bonestructure, collision-, sight- and comfort analysis, a powerful database, extremely realistic imaging and simulation and comprehensive integration into development and production processes are features of avatars in the focus of my attention but these features are in a sense superfluous for avatars like the ones in Second Life. They could even be potato sacks as far as the potatoes can be pushed freely back and forth in order to shape brilliant muscles, pretty buttocks or curvaceous breasts. It is utterly indifferent what inside of this shape is…whether there are bones at all.” (Geher 2010). Email Interview with Klara Geher - May 18, 2010
341 Although Chambers claims that people aspire towards “maximalist aesthetics”, there is no visual evidence to support this. Chambers guesses this might be due to the fact that most avatar users are not experienced in design and/or are too “lazy” to produce anything that does not simply correspond to a socially acceptable narrative. (Focus Group, [C, 13:47]) Even amongst experienced designers in the group (and seen outside the group by the researcher), visual
simplicity of form, colour and texture is preferred. Quite often the most complex aspect of the form is that it is humanoid rather than being a simple geometrical shape (prim).

342 “Flexible is a property that can be set on a prim through the edit window or via the PRIM_FLEXIBLE script parameter. Setting a prim to flexible will cause it to ‘flex’ either with movement or by being blown by the wind. A side affect of enabling flexible is that phantom is also enabled. A flexible prim is also known as a ‘flexprim’, ‘flex’, or ‘flex prim’” – Accessed online on August 26, 2010 from Second Life’s official technical wiki - http://wiki.secondlife.com/wiki/Flexi

343 “An Invisiprim is a prim with a special texture. The texture appears transparent and has the effect to hide all items with an alpha layer which are being seen through the object with the invisitexture. This includes water, clouds, particles and any part of the default avatar (including clothes, but not attachments unless they have alpha textures). Prims with an invisitexture are not highlighted through the Highlight Transparent feature of the viewer (located in the View menu). Invisiprims are often used by creators of furry or other non-human avatars, to hide parts of the human default avatar” – Accessed online on August 26, 2010 from Second Life’s official technical wiki - http://wiki.secondlife.com/wiki/Invisiprim

344 “Formalist artists in Second Life are just making advanced 3D design on a community platform. It is bad as art because it is just exploiting the potential of a software tool; and it is bad as 3D design because Second Life is a bad 3D software platform, with many limitations and a defined aesthetics. Something better came up when artists understood the potential of Second Life as a place and as a social platform. [...] When they started designing their avatars not in order to make a beautiful or impressive avatar, but to construct a social persona. When they started designing objects and environments, activating scripts etc. not in order to explore the aesthetic potential of their medium, but to challenge their audience, subvert their expectations, make things happen. Of course, when you are using Second Life as a performative platform, you are still using it as a medium. Making performances still means designing objects, writing and activating scripts, etc. But the perspective is completely different”. Quaranta, D. “If you were role-playing Clement Greenberg in Second Life...Jeremy Owen Turner Interviews Domenico Quaranta”. Email interview with Domenico Quaranta, June 29–July 03, 2010. Posted on http://domenicquaranta.com/2010/07/clement-greenberg-in-second-life/. Accessed online on July 05, 2010.


346 The Modernist pre-occupation with customization was not that apparent in the research findings. McCaw seems to have an explanation for why this is the case in Second Life. In McCaw’s historical view, “...as online worlds such as Second Life grow in population and architectures, we also begin to see these architectures and forms as ever-evolving and constructed from an infinite combination of primitive shapes. While technically anything is possible in this toolbox of our imagination the combinations people do choose to create, regularly rely on representations of that which is already familiar” (McCaw, 2006). http://www.journal.fibreculture.org/issue11/issue11_mccaw.html - Accessed online on May 25, 2010.

347 “In many ways, Second Life is an ideal post-modern metaphor. What better way to express post-modern irony, ambiguity, fragmentation, plurality and globalization than through a virtual world, where anyone from anywhere can be anything – an ‘anything’ that can be vaporized into nothing at the decree of its owner, Linden Lab?” (Cheal 2007:205).

348 In Modernism, art-for-art’s sake has become “free to distance itself from religion, politics and even morality”, therefore, “all it has to do is be good as art” (Greenberg 1979:3).

349 “No amount of phenomenal, describable newness awaits when the internal relations of the work have not been felt, inspired, discovered. The superior work of art, whether it dances, radiates, explodes, or barely manages to be visible (or audible or decipherable), exhibits, in other words, rightness of ‘form’.” (Greenberg 1968:3)

350 “The further fact is that hypothetically, in principle, the artist can largely transcend or abstract himself from every historical circumstance except that of art itself. That is, he cannot separate himself from the tradition or course of the particular art he practices” (Greenberg 1980:3)

351 Second Life’s official forum for structural and technical design issues is known as "jira". The history for the thread about applying alpha-channels to an avatar’s base form is posted at https://jira.secondlife.com/browse/VWR-812 - Accessed online on August 28, 2010.

352 “To the extent that an avatar can escape its droll interpretation as a human-like object whose position is determined by keyboard and mouse events and whose human-like appearance can be customized by someone with an avatar account, and [...] that an avatar can occupy many other elements of a virtual world, including tweaking physics itself, occupying more than one place in the world at once, existing as a non-humanoid form, expressing itself as text or sound only, and even manifesting in other mediums and other worlds, then the avatar becomes a powerful form of self expression”. Email interview with Jeffrey Ventrella – November 16-19, 2009

353 Ibid.

354 Such a paradigm could plausibly be some form of Modernism or represent a superficial understanding of “Modernity”.

355 The non-anthropomorphic avatar designer Flea Bussy (SL name) of the design firm ‘Grendel’s Children’ agreed to an interview but the thesis author could not coordinate a proper interview schedule with her in time. Additionally, Bussy did not seem that articulate enough to talk about her designs in
detail. However, she did provide permission for her designs – many of which were presented by the participants in the Focus Group - to be published in this thesis. http://grendelschildren.net/ - Accessed online on August 29, 2010.

356 In summary, Net-Art is concerned with the database and browser-based interactivity. Telematic art dealt with asynchronous video communication. Digitally (Re)-Mediated Art would be a detailed examination of previous media being re-mediated through technology in order to create a hypermediated experience. As examples, Martin Arnold (ca. 1999) used the toggling feature on his digital video device to produce real-time edits of digitized Judy Garland movies whereas Markus Popp from Oval (ca. 1993) created “glitch” music out of skipping Compact Discs. Literature, although known to have Modernist instances, was outside of the author’s immediate conceptual scope at this time.

APPENDIX - FOCUS GROUP DISCUSSION OF AVATAR DESIGNS

Unlike the workshop session, the participants directly speculated on general avatar design issues in the text-chat channel. Furthermore, the participants directly based their speculations on the researcher’s Avatar Design Analytical Framework (Chapter 5).

Medium Visibility Discussion

Chambers questioned the researcher’s ability to detect microscopic visual evidence of the template-slider during the activity of avatar appearance editing. According to Chambers, many of the slider-changes (such as those that deal with the face) are too small and subtle to be properly detected (Chambers 2009. Focus Group 13:38). In addition, Chambers insists that many avatars like to buy from others and “mix and match” their body parts and accessories (Ibid: 13:45). As a result, Chambers believes that the fundamental differences between customization, selection and purchasing are not visually evident to the observer. From Chambers’ standpoint then, without having a detailed explanation of an artist’s creation process, the visibility of the application is always concealed from the critic. Chambers seems to be implying that critics can only apprehend the visibility of Second Life’s “medium” through direct
immersion into narrative functionality and cultural interaction. Another issue related to medium visibility had to do with the participants’ gradual awareness of the pixilation of their avatar artefacts. The “Modernist Art-Critic” (researcher) catalyzed the participants’ hypermediated awareness through bringing the subject up in the text-chat channel. The final issue related to medium visibility was more of a brief acknowledgement that the deformed avatars were their original “underlying” (Coakes 2009. Focus Group. 13:08-13:09) avatar forms and were the equivalent to a glitch-visualisation.

Visual Autonomy Discussion

The participants confirmed the observations that the figures were distinct from their environment—even if these forms were non-anthropomorphic and abstract. One of the discussions revolved around the researcher’s observation that at least two participants preferred some skins instead of others for their use of “grid-lines”. The researcher reached the assumption that the participants preferred certain that clearly demarcated the avatar’s figural proportions. Coakes confirmed that the skin-lines helped determine the skin’s shape by saying, “even if you intend to hide it [the lines], you have to deal with it first as the foundation of everything else” (Coakes 2009. Focus Group. 12:57).

Visual Recognisability Discussion

There was a brief debate between Coakes and Chambers about the necessity of abstraction within the paradigm of medium-specificity. In Chambers’ view, there is no imperative towards abstraction—even in Modern Art. Coakes, however, takes a softer position on this subject since she hints at the possibility that although there is no abstract imperative, some aspects of a medium lend itself towards abstraction. Referring to Juliette’s “Wooden Avatar”, for example, Coakes confirms that visual recognisability has more levels than simply whether the design refers to external iconography or not. Chambers’, however, felt it was worth reminding this group that many avatar users in Second Life “took inspiration from SL people who to took it from fables” (Chambers 2009. Focus Group 12:43). Therefore, as far as Chambers was
concerned, visual recognisability is usually a visual by-product of “second hand fantasy inspiration” (Ibid).

The biggest issue related to visual recognisability revolved around the inevitability of Second Life’s default humanoid avatar form. To begin with, most of the participants conceded that the generic humanoid form is the most functional and desirable one available. Coakes voiced the only exception to this group concession when she claimed that she tends to design the form’s height according to whatever inspired her at that moment (Coakes 2009. Focus Group 12:43). Despite this exception, the researcher did not observe a single instance where participant-authored avatars went beyond or below the scale of an average humanoid form. More to the point, Coakes admitted that designing non-anthro forms “takes way more skill and resources” than she has at her disposal (Coakes 2009. Focus Group 12:31) and this is likely visually evident when perceived by other avatars in Second Life. Consequently, an insistence on using the humanoid form as an explicitly recognisable trope can expose the limitations of “craftsmanship” to others. Contrarily, Tyne - the most established and professional designer of the group - relied on humanoid forms (although some were half-anthropomorphic). Perhaps then, these half-anthropomorphic hybrid avatars visually hint to others that Tyne has the requisite skills to go beyond the human, if desired by the client. On a structural level, the participants expressed enthusiasm for a new Second Life avatar appearance editor that would allow for the non-anthropomorphic “quad” form as an additional body template. In fact, it was from discussions similar to these that compelled Second Life’s creators to add alpha-layers to their second versions’ editor (Chapter 10.2).

**Practicality Discussion**

The researcher prompted a debate amongst the participants about their secondary concerns with ornament. On the surface, it seemed as if the participants’ primary concerns were only with the details of their avatar’s shape and that the
accessories, clothing and skin-decoration (i.e. tattoos) were an afterthought. Firstly, Chambers declared that when creating a new avatar, the most expedient procedure for construction is to “start naked, accessorize last” (Chambers 2009. Focus Group 12:28). This is because Chambers believed the core avatar form to be a “blank canvas”. However, the researcher pointed out that even after the participants spent a considerable amount of time shaping their naked forms, there was little evidence of ornamentation of any kind – even with the participants’ completed designs. As a corollary to this observation, Coakes indicated that this lack of ornamentation did indeed transcend construction procedures and was more about the prevailing cultural consensus of taste amongst avatars in Second Life. For example, Coakes reminded Chambers that ornamentation, if desired, could easily happen much earlier in the construction process. This is because some of the template-sliders actually allow for immediate skin-ornamentation (i.e. tattoo patterning). From an optical standpoint, Tyne also conceded that tattoos are not commonly used amongst humanoid avatars because “most clothes” cover up tattoos (Tyne 2009. Focus Group 12:38). The participants seemed to agree in the shared conviction that an avatar’s colours were “intended with socialization in mind” (Coakes 2009. Focus Group 13:19).

“Craftsmanship” Discussion

The consensus amongst the participants was that the creative process of selection was preferred to raw customization. With Chambers, the sliders were her “building blocks”. Despite the reliance on template-sliders over prim-customization, the Researcher noted that the participants’ paid sufficient attention towards sculptural detailing of the humanoid form. Therefore, this suggests that at least some formal discipline and rigour was present. However, this focus and attention to detail occasionally resembled “tweaking” rather than providing any solid evidence of original technical proficiency. In the case of the presented avatars, the participants only chose to modify the colour and not any other formal aspect of the avatar’s pre-designed shape. Consequently, there might be a direct correlation between virtuosity and diversity.
Visual Diversity Discussion

There was not a unified discussion about diversity as such but Coakes and Chambers brought up some salient observations in the text-chat channel. Coakes acknowledged a conscious concern with minimal elegance (simplicity. With her own designs, she preferred a homogenous distribution of “realism” across all avatar components. In other words, she avoided photo-real skin because it would contrast too sharply with her “cartoonish hair” (Coakes 2009. Focus group 12:51). Chambers, on the other hand, made the tenuous claim that “SL people tend” towards a “maximalist” aesthetic (Chambers 2009. Focus Group 13:47). However, Chambers conceded to the Researcher that “most can’t achieve” maximalism because of a “lack of experience” and/or propensity towards connoisseurship (Ibid). Consequently, even the most ambitious avatar designers “tend to copy each other or to stick to popular culture (e.g. fashion shows/magazines, tv models, fable models)” (Ibid). In conclusion, Chamber’s latter claim directly informed the overall research findings.

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\textsuperscript{1} This text-evidence shows the participants paying more attention to the pixilation of their avatar artifacts.

[12:45] Juliet Chambers: my gown is quite pixilated :(
[12:45] 3star Tyne: my tail is pixilated
[12:45] uuuuuu Heliosense: let me check
[12:45] Ember Coakes: on my machine, everything is kind of pixilated, really
[12:45] 3star Tyne: :(
[12:45] uuuuuu Heliosense: yes, the fringes are
[12:45] Ember Coakes: I have to turn the graphics down :(

\textsuperscript{ii} - Focus Group - [12:55] Ember Coakes: Skins by different designers do have different lines, yes, so they’ll change how the shape looks
[12:55] Ember Coakes: I stayed within the same set of skins because I liked the lines I had, but wanted to find the right color
[12:55] uuuuuu Heliosense: were you looking at those lines when adjusting skins?
[12:57] uuuuuu Heliosense: even the skins seemed to be adjusted around the skin-lines of the body shape

\textsuperscript{iii} - 357 Focus Group - [12:33] uuuuuu Heliosense: so for example, painting and sculpture did not need to be representational to show its form
[12:34] Juliet Chambers: I disagree, a lot of sculptures are representational that does not mean they can’t be
[12:35] uuuuuu Heliosense: I just mean that a sculpture does not need to be representational
[12:35] uuuuuu Heliosense: for example, someone could just exhibit a random block of wood and call it "sculpture"
[12:35] Ember Coakes: IT certainly can be, but it doesn’t have to be

\textsuperscript{iv} - Focus Group - [13:18] uuuuuu Heliosense: Juliet’s avvie here shows wood as being both representational (of wood) and yet, representing the illusionistic transparency of the materials
[13:18] Ember Coakes: It’s representative, but not of current Pop Culture
Focus Group - [12:34] Ember Coakes: If only because that’s the object we have direct control over AS an avatar - anything we do with it starts with the core given to us by the system, and that core comes in Anthro shape by default…

Coakes raises the issue that SL’s creators have not built in a “quad” torso into the default avatar appearance editor (Coakes. Focus Group. 12:34 & 12:35)...(See Chapter 10.2 for 2.0’s developments in this direction).

***Interest confirmed by Tyne***

[12:35] 3star Tyne: if we had animal shapes to start from in the user templates that would be sooo cool

Focus Group - [12:38] Juliet Chambers: again... with a blank paper in front of you, would you start from the tattoos?

[12:39] Ember Coakes: Ahh, but SL doesn’t give you blank paper, it gives you an anthro form

[12:39] Juliet Chambers: it’s a blank canvas to me, anyway

[12:40] Ember Coakes: Juliet, I’m not arguing that the base avatar isn’t meant to be built on, but a humanoid form isn’t as wide open as blank paper, that’s all

[12:41] Juliet Chambers: well Ember, you can easily make it disappear :)

[12:41] Ember Coakes: Only that’s not the default

[12:41] Ember Coakes: if I have to work backwards to “get” a blank slate, then I wasn’t given one, eh?

Focus Group - [12:40] Juliet Chambers: sliders are like building blocks to me

[13:05] uuuuuuu Heliosense: and the glowing prims?

[13:05] 3star Tyne: prolly because they are from fleas library

[13:05] Ember Coakes: but the blue sections somehow reverted back, so this isn’t what it’s supposed to look like

[13:05] uuuuuu Heliosense: I want to know the proportion of custom vs. pre-purchased parts

[13:05] uuuuuuu Heliosense: I noticed that many skins chosen were pre-made

[13:05] Ember Coakes: The blue scales are the original texture - yeah, Flea

[13:05] 3star Tyne: um the only thing custom on this avatar is the color

Focus Group - [12:51] Ember Coakes: I try to have about the same level of realism across the whole avatar, so if I’m coming out a bit anime, so be it, but I don’t like to have a hyper-real skin and then cartoonish hair, or so on

[12:51] Ember Coakes: That’s actually why I avoid photoreal skin