

Real Places in Virtual Spaces

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Abstract: We can distinguish geometrically defined or indicated areas of space from those areas of space where a structure of social norms gives special meaning to movements and actions. A courtroom, a restaurant, a corridor each have their appropriate norms that distinguish sub-areas and assign behaviors to them. We might call such areas *places* as opposed to mere areas of space that have no special significance. In this sense of the word *place* there are real places located in the virtual spaces within online games, conferencing systems, or mixed physical-virtual spaces. As with places in physical space, the value of places in virtual space depends on the detailed character of their spatiality, the way their textures fit with their social use, and on the complexity and humaneness of the actions guided by their social norms.

Introduction: Places and Areas

Real events happen in real places in virtual spaces. This may seem a strange claim, if places are supposed to be in physical space, reachable by some combination of movements starting from where you are now sitting. I am claiming, though, that while places need to be within a perceptible space, that space does not have to be physical. Virtual spaces can become inhabited places.

In daily English *place* and related terms are used in many overlapping ways. A beautiful field of flowers is a place, the broom has its place in the closet, the children's place is upstairs, the third line on the form is the place to fill in this year's income, and so on. While there are some different nuances between saying that a location is the place for the game, the site of the game, or the position of the game, in daily usage the terms often have little distinction from one another.

Yet there are distinctions we can make. There are beautiful areas in a forest that are obviously "somewhere" locatable on a map, and we can walk to them, and they have a striking unified character, but they are "nowhere in particular" in the sense that there are no expectations or rituals or actions associated with the area. Many things are happening in those areas as the plants grow and the birds fly, but in another sense nothing human or social happens there. Such areas are places in one sense of the word but not in another. I want to distinguish those senses.

For the purposes of this discussion I will use the term *space* to denote the larger wholes within which areas and places are distinguished. Spaces can be divided into *areas*, which

are geometrically defined or indicated regions. Spaces can also contain *places*, which are areas permeated by spatially articulated social norms and expectations for what people do there. *Areas* can be designated very precisely by measurements, or by reference to landmarks, or loosely as "over there." There are many purposes for designating areas, but designating them does not automatically make them places in the sense I want to emphasize. *Places* in my special sense are those areas that are places-where-we-do-something, rather than just stretches of places-where-something-is. That area over there is just an arbitrarily defined space, but this one here is the town picnic spot, or a courtroom, or a ball field. The parts of an area stand in spatial relations of adjacency, position, and distance. The parts of a place stand in more complex relations. At a political speech the speaker's area and the press area might be adjacent, but the contrast between them is more than geometrical. Many things can have social norms attached to them: clothing, music, images, smells, sounds, and so on. A *place* in my sense of the word is an area of space that has social norms defining appropriate actions and movements.

Places, in this sense, involve areas of space permeated by social norms that lay out spatial possibilities for action. Those norms prescribe divisions within the area and govern what is expected or appropriate to do and not do there.¹ Place norms are very explicit in highly ritualized areas such as a courtroom or a parliament. But less explicit and looser norms apply to a dining room or a corridor, and there are norms involved in temporary places, as when a group sets up a picnic blanket or rearranges chairs at a restaurant table. Here is where you sit, and if you move that chair too far you are violating a (temporary) expectation and so making a statement about your role in the conversation.

In a discussion of systems for cooperative work, Harrison and Dourish remark that

Physically, a place is a space which is invested with understandings of behavioural appropriateness, cultural expectations, and so forth. We are located in "space", but we act in "place". . . . A conference hall and a theatre share many similar spatial features (such as lighting and orientation); yet we rarely sing or dance when presenting conference pa-

¹ The experience of a place is not just a sequence of "now here this color and shape, now there that color and shape." We experience a place in time as we move around, but that experience is not a simple temporal sequence. A present perception gets its meaning from its relations within a net of other connected but absent perceptions and socially defined actions for the past and future. For instance, perceiving a visual outline as a house involves the expectation that the object has a back side, can be entered, and so on. There are action possibilities that give practical meaning to a doorknob or a ballpoint pen. We know what to do with those objects. Their meanings are captured in the norms for their use. Large social actions -- founding an institution, passing a law -- get their meaning through the wide ranges of possibilities they open and define. Those possibilities in turn get their significance from connections to still others in a net that has no definite boundaries. Because there must be such connections, no present moment or place stands isolated on its own.

pers, and to do so would be regarded as at least slightly odd (or would need to be explained). We wouldn't describe this behavior as "out of space"; but it would most certainly be "out of place"; and this feeling is so strong that we might try quite hard to interpret a song or a dance as part of a presentation, if faced with it suddenly. It is a sense of place, not space, which makes it appropriate to dance at a Grateful Dead concert, but not at a Cambridge high table; to be naked in the bedroom, but not in the street; and to sit at our windows peering out, rather than at other people's windows peering in. Place, not space, frames appropriate behavior. (Harrison and Dourish 1996, 69)

Place norms specify types of actions and movements and locations, along with their appropriate placements and borders and transitions and performances. Not every act performed in a place makes a move that is significant in terms of the norms of the place. Some acts are just things that happen there. Shifting three feet to the left on a church pew may not change your normative status, but moving three feet forward might cross a border into a more sacred part of the church. The normative range of behavior changes as you move from the courthouse steps into the courtroom. In a city park, taking off your shirt would not make much normative difference, while at the parliament it might make an enormous difference to your "position" in the place. You would have moved in a normative dimension of significance and this would change your relation to the other people there.

None of this says that the norms for a place have to be clear or uncontested. Some places are normatively vague or liminal. Even well-defined place norms are liable to revision since they are kept in force by ongoing processes of interpretation and reproduction that may consciously adapt to changed contexts or unconsciously introduce unintended alterations.

What I've described may seem too thin a notion of place. There is so much more to the thick embodiment and the psychological investment we have in places, and to the historical and personal associations and narratives that shape our responses.² Yet those richer responses and that sense of bodily identification may connect to areas that are not socially defined places. In order to argue for real places in virtual spaces, I need to emphasize the social dimension, and how virtual areas acquire consensual social structures for what is done there. Real social events happen there, not just private identifications and associations.

Virtual Places

If places are perceptible spaces surrounding us, where our spatial movements and perform-

² For the sense of bodily orientation, see Casey 1993, for associations and narratives see Tuan 1977.

ances are regulated by social norms and expectations, then places do not have to be in physical space. Virtual space can provide the required area and social practice can create real places there.

Virtual spaces today can be useful and exciting but are not yet easy. We sit in front of a computer and peer into a space presented on the screen, where we can see from a particular spatial location, or we have an "avatar" or self-representation that we can move about in the virtual space. Or we go into a special "cave" with screens for walls and sensors to detect bodily movements, or we don special devices and cooperate with software that produces a passable effect. In those cases we do move physically and our movements in physical space are translated into movements and changes of perspective in the virtual space. Whether through a screen or through more elaborate equipment we experience a spatial perspective within which we or our avatar can move about.

The technology improves rapidly, as can be seen in the virtual reality effects used in theme parks. These provide entrance to shared virtual spaces for adventure or story. When players work in teams they can see teammates' representations in the virtual space as they rush about. Theme parks have little use for slow, contemplative virtual experiences, but artists are beginning to develop them.³

It is hard to imagine that virtual reality could ever replace the experience we get walking in a city, or even walking outside at the theme park surrounded by the exhibit buildings, where our body movement, changes of perspective, the far horizon, the multiple lighting, the wind, and the surrounding crowd combine in an experience too rich for current simulations. Full-body involvement in virtual reality is a long way off, but there is no reason to presume it is impossible, and there are plausible-seeming fictional descriptions of what it might be like, most famously in William Gibson's novels. Discussion about whether virtual spaces can be real places should not be limited to the current state of the art.

Yet even if the technology never progressed beyond what is possible today, there are already real places in virtual spaces. There are areas of virtual space governed by social norms for action, where spatial motions and actions take on special significances. Consider virtual spaces presented in multi-player online games, or in some teleconference systems. People have conversations "in" such spaces that don't exist physically; they get into arguments "there"; they construct and return to shared artifacts "in" these virtual spaces. Geo-

³ Michael Heim (1998) provides an overview of the then-available virtual reality technology and describes artistic creations of virtual realities that do offer a contemplative experience. He also offers a provocative comparison of virtual and natural reality. See Hansen 2004 for a discussion of more recent experiments and art works.

graphically separated couples have been married online. If one asks of these activities in what place they happen, it would seem that "in the virtual space" is a better answer than "at the scattered physical locations of people sitting at desks all over the world."

Responding to an objection may make the point clearer. People have conversations on the telephone, and they could get married during a conference call, but people do not think of telephone conversations as happening in a unified place separate from the places of the people on either end of the line. When a committee meets by conference call the members do not think of themselves as meeting in some common place. If I converse with you by using instant messages that appear on each of our computer screens, we do not think that there is a new place where our conversation is happening. Why should virtual reality be any different? The answer is that a participative virtual space is not the same as a phone call. A virtual space provides new perceptible areas that can be divided into sub-areas and overlaid with social norms and expectations. It is not the visual connection that matters -- a video phone might show the participants each other's home but it would not establish a different, shared area in which to perceive one another and move together. A virtual space offers a new area, and so field of possible movements open to social norms and expectations. If, instead of voices coming over a phone during a conference call with a committee, I see the avatars of the committee members and myself in a virtual meeting room, and if I can pound the virtual table, or insult the others by turning my avatar's back on them, if the virtual space is differentiated into sub-areas for talking and sub-areas for other activities, if how I position my virtual body matters in a way that my physical bodily position does not when I talk on the telephone, then the meeting would be taking place there *in* that virtual room. I might be physically at home in my bathrobe, but my virtual body might have to be properly dressed lest it violate some norm of the place. I might want to violate that norm for some reason, but it is the presence of norms on the virtual spatiality that makes the virtual area into a place, and my sense of spatially articulated actions and their meanings in that space gives me the sense of being there.

It would be best if I see the virtual room from a point of view of my avatar, but a more detached view will still give the sense of embodiment if my avatar is especially responsive to my commands. Most multi-player online games allow a detached view that keeps the

player's avatar in the center but allows the point of view to move around it.⁴

Virtual or physical, a community needs a setting that holds memory and allows social patterns to become established, fostering a mode of interaction and a style.

I've spent more than a decade on-line. I've visited just about every kind of place a computer and modem can take you. The places I've seen on-line that flourish do so when people bring themselves to the table, contributing their own ingredients to a communal stew of ideas, opinions, and metaphors. Where you find people building relationships, sharing day-to-day experiences, teaching each other what they've learned about the world, and figuring out together how they're going to face the oncoming day -- those are the places that thrive. Those are the places people live in. . . . inhabitants must be able to build on their experiences there. When users can change the state of objects . . . and when those changes persist from day to day, it becomes possible for those objects to embody meaning. (Rossney 1996,145)⁵

Because of the social norms and expectations defining places in virtual space, our actions there can have real-life consequences for our ongoing relationships and projects. This is another sign of the reality of such virtual places. They refute "the common fantasy of [virtual reality as providing] a laborless pleasure, a pleasure or desire that has no responsibilities; a work of consumption with no trace, no effect, no cost of labor, no residue" (Grosz 2001, 45).

Most virtual places are likely to resemble physical places, using already established habits and expectations. There will be virtual stores that look like physical stores, where you can stroll the aisles and fill your virtual cart with tokens of goods; you understand the place by analogy to familiar physical places. However, virtual places can develop patterns that have

⁴ Games such as Doom were a significant advance because they allowed the maze of corridors to be seen in real time from the perspective of the actor whose "body" was both mobile and slightly visible to the player, if only as a gun barrel. The original text-only MOOs and MUDs were transitional cases, yet even they could create a real places in a limited sense, as they describe a shared spatial area in which movements and gestures are significant and regulated by social norms. Interacting in a MOO feels somewhat like being in a physical place wearing a blindfold and hearing what people tell you is going on.

⁵ Harrison and Dourish argue that if a common body of norms and expectations develop, even completely space-less processes can be places: "The distinction between 'space' and 'place' is perhaps most strongly demonstrated by examples of the emergence of place without notions of space. . . . One obvious source of such examples are USENET news groups and Internet mailing lists. The technology of each USENET group is exactly the same, and yet the resultant groups exhibit very different notions of place. . . . Neophyte queries may be more or less appropriate, depending on the culture of the group; so are flames. These styles are relatively independent of topic" (Harrison and Dourish 1996, 72). I think, however, that such groups should be thought of as having developed *cultures* but not *places*. A place needs a perceived space that provides areas with spatially articulated norms and patterns so that movements can take on new significance.

no physical counterparts. Why stroll the aisles when you can teleport to the desired section.⁶ Virtual spaces could have wild geometries and counterintuitive features, as when a small house is much larger inside than out. Arthur C. Clarke describes a virtual assembly hall where each participant views the assembly from a position directly in front of the speaker's podium, and sees the other members sitting around (Clarke 1956). Such a hall could not exist in physical space since while everyone is present and can see everyone else, the seating arrangement is different for each participant.

Does the virtual pervert the notion of place? It is true that in dealing with people and nature physically present there are thicker modes of contact than any virtuality is likely to contain. Still, the objection overestimates the immediacy of normal encounters. Even if a virtuality cannot provide the fullness of our most awake encounters, it may provide as much as humdrum awareness often brings.

Virtual Areas and Places

Another indication that virtual spaces can be real places is that not every virtual area automatically becomes a place. Once it is possible to create large virtual spaces, there will be the virtual equivalent of in-between space, virtual areas where no particular pattern of human action takes place.

The virtual areas in computer games offer a limited space that has no outsides or non-functional spaces; though you may be able to see mountains in the distance, you can't delay the game and go off hiking in the hills. A game, or a conversation, could take place in a virtual space comprised solely of one place, perhaps, as in *No Exit*, one room with some furniture and no exterior. Yet even then, the place would offer a sensed space that allowed appropriate movements, turning towards the mantel, looking away from one's companions, and the like. A virtual space could also be much larger than the social places established within it, containing virtual real estate not yet developed into inhabited places. (For a fictional example, see Neal Stephenson's description of the unused portions of the virtual planet in *Snow Crash* (Stephenson 1993, see also Dimendberg 1999 for a discussion of the "unused" portions of film sets).

Places get made in spaces that offer areas and directions and textures that invite inhabita-

⁶ See Heim 1993, 82 for a list of policy questions relating to the design of virtual spaces. Heim invokes Plato's doctrine of our hunger for more reality than the everyday to explain the fascination with virtual spaces. However, he does not give enough weight to more humdrum motivations. His approach to virtual reality owes more to striking artistic productions such as those described in Heim 1998 than to everyday activities such as shopping at Amazon.com. The imaginings in Stephenson 1993 about "The Street" as a virtual mall provide a corrective to overly artistic conceptions of virtual spaces.

tion, allowing our body to be oriented there, and receiving social norms. While physical areas are always parts of a larger space, virtual spaces are created whole. They are not contained in anything larger. If there is no larger sensuous or physical continuum from which virtual spaces are cut, we can ask: What is *outside* a virtual space? There is no single answer to this question. In one straightforward sense there is *no* outside for a virtual space. If the virtuality had an edge, and there was something "outside" to be encountered by going to that edge, then what was outside would be part of the virtuality. (This issue has a long history; see Casey 1997.) In a second sense, what lies outside the virtual space are other virtual places that it might be linked to, but such links do not cross physical space. If virtual spaces are not linked, then there is no distance or direction between them. The spaces of two computer games stand in no spatial relation, though there may be qualitative relations and references from one to another. In a third sense, what is outside the virtual space is the world of physical causal interactions and ordinary life busily sustaining the virtual experience. But that inside/outside relation is not like the relation between the inside and outside of a house. It is more like relation between a dream and waking life. There is no *spatial* connection between the space of a dream and the space of the physical world. There is one type of connection in the causal mechanisms and another at the level of experience and symbols.⁷

Virtual places are created by social norms that make use of the textures and features of a virtual area, just as happens in physical space, where the textures and geometry of an area may be more appropriate for some actions than for others. However, a virtual area's background features are also consciously created. Virtual landscapes could be created bland and featureless, but then they would be of little use for place-making until qualitative distinctions were introduced. Dealing with physical spaces, we have to start from areas' already given textures and shapes, and changing them takes work. In virtual spaces the textures of an area can be set up at the same time as the social norms. The creation of the background areas and the creation of the places are not the same, but they can interact. We will have to learn how to use the revisability of virtual areas to solicit the mutual creations of the place, the community, and the norms of action in the place.

Once it is set up the features of a virtual landscape might be changed more easily than the

⁷ Michael Heim (1998) describes the experience of artworks that mix virtual and real spatialities. There are also examples of enhanced reality where virtual items are overlaid on physical space. Surgeons have experimented with special lenses that add information from X-rays or brain scans to what they are seeing during an operation. I could wear a device that added fantasy characters to my room or library items to the documents on my desk. In such cases the virtual would be inserted without disrupting physical spatial relations. This is likely to be the major way virtuality enters our lives.

color of a physical wall. In this sense virtual places realize the modernist dream of working from a completely cleared space. However, in a busy virtual place most inhabitants would treat the features of the space as given and unalterable. If your purposes are practical, such as buying at a virtual mall or attending a virtual town meeting, you don't want to be distracted by negotiations over the visual background or the physics of the place. So, aside from private palaces where you might enjoy modifying the landscape, power over virtual public places would likely be confined to a planning elite -- which realizes another dream of modernist architects. But then, as happens with buildings and frustrates modernist dreams, the design features of a virtual space would end up being used other ways than the designers intended.

Discontinuous Places

Any place involves some discontinuities at its transition zones, at least those at its border. Most commonly, place norms make distinctions within the same spatial area, defining sub-areas for actions as spatial performances. But spatially distinct areas can also be bound into a single normative place. The place may include other physical or virtual areas at a distance.

Yale University occupies spatially distinct parcels of land in New Haven. Many major medical centers are composed of a number of hospitals that are scattered around their city. It might seem though, that Yale would be a discontinuous *object*, but not a discontinuous *place*. Compare Donald Trump's scattered real estate holdings; these might be treated as a single object for accounting reasons but there seems no reason to think of them as a single place. Yet social norms for action could turn scattered parcels into a single place. There are activities that occur across separated areas: educational sequences, commencement and other rituals, joint research, sports. There are activities that are activities of the university as a whole and which happen jointly or interactively in more than one area.

Virtual places offer other kinds of discontinuity. Most familiar are virtual social spaces where widely dispersed individuals come together to build and sustain a new environment. *Alpha-world* is an early online virtual community that allows inhabitants to build their own structures into a cooperative cityscape. The more recent *Second Life* uses more elaborate graphics and allows for a wide range of social interactions. The largest of these spaces are the multiple player interactive games such as *EverQuest* and *World of Warcraft*.

Such virtual places are discontinuous mainly at their borders. They are accessible by a jump from many different physical spaces, since they have no direct spatial relation with any particular area of physical space. This differs from a physical place whose spatial connections

are restricted to what is adjacent, or to fixed transport links. On the other hand, once you step over the border into one of these virtual spaces, the space offers a more or less familiar spatial landscape unity.

More discontinuous virtual places are possible; they might involve linked areas with wildly varying textures and geometries, or jumps between "spatially" discontinuous virtual realities. A room in a virtual space might contain a portal to a different virtual space, and the areas around both sides of that door could belong to one single place in terms of social norms for action, perhaps as the office of some Virtual Universe Oversight Committee. The office could include unified trajectories of action across discontinuities where portions of separate virtual spaces came together as parts of the same place. They might have very different internal geometries and "physical" laws, yet be part of the same office suite.

While such an oddly linked place would be different from what we are used to, the flexible spatiality of virtual areas tempers the effect of such discontinuities. In many virtual spaces you can hike laboriously about discovering new features, but the software also provides a teleport command to take you quickly about. If a socially unified place contained linked sub-areas that were widely scattered about the landscape of a larger virtual space, or across several virtual spaces, the possibility of immediate jumps among the sub-areas would make inhabiting such a place more like moving from one room to another in a large building. The presence of links across virtual distances begins to subvert the familiar spatiality that current virtual spaces work to preserve.

Still other types of discontinuity can be found in places linked by media.

I enter Hilton's TeleSuite, a small room garishly decorated with faux columns, and sit down at a semicircular table that could easily accommodate a half dozen people. Chatting with TeleSuite's Scott Allen . . . my table is flush against a wall that holds a back-projected 100-inch diagonal video screen on which Allen appears. . . . Allen appears life-size, so it's nothing like looking at a big-screen TV. It's more like an actual conversation. (Rubin 1997, 129)

The Infinity Room allows Texas students to communicate live with colleagues in Mexico using a network of video cameras, projectors, and screens. Whereas conventional video-conferencing shows only the correspondents' heads, the Infinity Room projects full body images. Texas students "see" their Mexican counterparts as if they were actually in Texas, and vice versa. Since the viewers are present in each other's space, both parties perceive an overlap of spaces. This produces a hybrid of physical space and cyberspace . . . where both parties coexist. (Anders 2000, 49)

These examples are what Harrison and Dourish call "media spaces," where television links physical areas together. In another experiment co-workers located in separate geographical areas occupied a shared office composed of their physical offices plus TV images of the other persons' offices. Besides the ability to see the other all the time, sounds originating in each office were heard in the other. Studies showed that the workers treated the two joined spaces as one place; and visitors routinely greeted both workers when stopping by one of the offices. "Two people can be in what they think of as the same place (like an electronically shared office) but will not be in the same physical space" (Harrison and Dourish 1996, 73).

Other kinds of mixed places can be imagined. My suburban room could become a part of a newly defined assemblage of physical and virtual rooms. A webcam could integrate it into a place composed of a virtual meeting space plus my and my friends' physical rooms shared on wall-sized screens, through which we or our avatars could wander and interact. A scattered group of private tutors could create a hybrid "school" composed of some laboratories in physical space and classrooms in virtual space. Local physical stores could become part of a virtual mall. A local school or library or church could expand and connect into a larger shared virtual/physical facility. A world-wide task group could have an office composed jointly of their scattered local offices and provided with additional virtual conference rooms. Whether created by television or by virtual reality, discontinuous add-on places could overlay virtual real estate and new place norms on existing buildings without the costs of physical construction, and, in the suburbs, without running afoul of the defenders of property values or a community's architectural controls. Such discontinuous places would be defined more by their particular place norms than by their peculiar spatiality. A mixed virtual/physical library would have more in common with an ordinary physical library than it would with a mixed virtual/physical shopping mall.

Real places in virtual spaces, and mixed virtual/physical spaces, are neither desirable nor hateful in themselves. As with places in physical space, their value depends on the detailed character of their spatiality, how well it harmonizes with their functions, and above all on the complexity and humaneness of the actions guided by their social norms. A virtual shopping mall that reinforces standard consumption patterns gains no special value by being virtual. Dizzying novelties in virtual geometry and instant transportation do not guarantee that a virtual place will offer any new social roles. On the other hand, the flexibility possible in virtual spaces may bring a sense of freedom and experimentation. If this leads only to playing out values and behaviors that are socially defined as deviant, then the virtual novelty remains just another way of staying confined by the current definitions. Most virtual spaces

available today provide simplified social situations. True social creativity is rarer, but may emerge as people interact in more flexible spaces and worlds. We should not presuppose that our ideal inhabitation should be easily defined, simple and single-ply. As our contexts become more complex, we live at once in many intersecting roles and places with many complex norms. The connections between them cannot be sorted out into neat hierarchical or binary relations, and judgments of place quality cannot be made on any simple scale.⁸ We might hope that the availability of real places in virtual spaces, and the ability to mix and join them to physical spaces, may allow us to express more fully the complexities of contemporary social roles and interactions.

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⁸ See Hertzberger 1991, 75ff. For more on virtual spaces and on the criterion of complexity applied to places, see Kolb 2005.

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