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Peter Bosselmann. *Representation of Places: Reality and Realism in City Design.* Berkeley and London: University of California Press, 1998. xiv + 228 pp. $35.00 (cloth), ISBN 978-0-520-20658-8.

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The Representation of Professionalism

Peter Bosselmann is Director of the Environmental Simulation Laboratory (ESL) at the University of California, Berkeley, where he teaches in the College of Environmental Design. *Representation of Places: Reality and Realism in City Design*, makes ample use of this experience to examine the role of simulation technologies in urban planning, and to illustrate the techniques and professional roles of the group of planners whom he calls "simulators." A suite of three case studies undertaken by the ESL demonstrates the use of computer modeling to predict the effects of development on a host of environmental and experiential factors that affect the users of urban spaces forms the centerpiece of this richly illustrated text; they were originally presented to local decision-making bodies evaluating the planned development in New York's Times Square Theater District (1985), San Francisco's Mission Bay and downtown area (1984), and downtown Toronto from the edge of the existing downtown to Lake Ontario (1990). The primary purpose of these studies is to represent aesthetic effects of new construction on the built landscape. However, the ESL also calculated such environmental factors as downdrafts off skyscraper (using wind tunnels) and sunlight obstruction (a polar grid superimposed on a fish-eye photograph of the sky from mid-block at noon allowed that calculation). Combined with information on a city's average temperature, humidity, and wind velocity, street-level conditions can be read against "bioclimatic charts" (reproduced on p. 141) to determine the effect of construction on the comfort of "a person dressed in a business suit, taking a leisurely walk in the shade" (p. 140). This central section of the text is well-focused and informative, although I did on occasion wish for a closer relationship between words and images and for explanations of notations in the illustrations and charts.

The review of ESL projects is situated between an opening section that recounts the history of professional representations of urban space and the search for new visual-verbal languages that will prove more efficient information delivery systems, and a final section that is primarily concerned with the new technologies available to simulators. The closing chapters offer further discussion of technical specifications for accurate visual representation, a review of a simulation project undertaken by the ESL for the California Department of Transportation to solicit reaction from Bay-Area residents to different densities of residential development in areas near rail stations (marred somewhat by an error in tabulation that distorts the results[1]), and a chapter that reflects on the professional obligations of urban simulators. That chapter is particularly relevant to the overall plan of the book because subtextually *Representation of Places* is a story of triumphant progressivism. Cast as "providers of [objective] information, not policy advisers" who maintain "a neutral stance toward the parties in a dispute" (p. 201), simulation professionals carry the day against interested parties in "the adversarial context of city design and planning" (p. xiv); new techniques are cause for "professional optimism" (p. 176).

Notwithstanding its undoubted wider appeal as an historical introduction to urban representation, Bosselmann intends *Representation of Places* "primarily for urban designers, architects, and landscape architects, who depend on concrete representations for their own understanding of what they do" (p. xiv). "Concrete" seems a curious term to describe computer models of hypothetical developments, and it is part of a larger problem with terminology in this volume. He uses that adjective regularly to describe. While many of the factors studied by the ESL are material and measurable, visual experience is the touchstone to which the title's key terms all refer. Typically, "reality" means how a building appears or will appear to a viewer located at some point in urban space. Therefore, "realism" names the goal of physical or digital models faithfully and objectively to represent, or to predict these factors; the best representations are "com-

plete, accurate, engaging, detailed and true to the sense of those who will experience the designs once they are built" (p. 199).

Bosselmann might object to my assertion that his concept of experience is thus circumscribed. To be sure, his brief Introduction avows "the richness and complexity of the real world," and he counsels that he "use[s] the word 'places' broadly in all its dimensions–physical, social, psychological, economic, and political" (pp. xiii, xiv). But he does so only in fits and starts. More often, he seems to follow Kevin Lynch's method in *The Image of the City*, making "his first order of business what might be called 'public images," and leaving "individual differences, interesting as they might be[,] to a psychologist" (Lynch, p. 7). Bosselmann avers that "the thoughts of those viewing the information may differ greatly because viewers examine what they see in relation to their own concerns" directly after enumerating engagement and truth to experience as qualities of successful representation (p. 199) and he finds "most innovative" Camillo Sitte's conviction that "urban places respond to the inhabitants' psychic state [sic]" (p. 35), which I take to mean something along the lines of the power of buildings to affect mental states.[2] But he does not wish to thereby expand representation to account for conflicting the social and psychological dimensions of place. Quite the opposite; Bosselmann repeatedly returns to the question of how a particular pattern of development would appear to an objective eye viewing it from some point on the city's sidewalks (e.g.: pp. 112, 122, 126-27, 137, 170-71). We might say, then, that the simulator's reality is deficient by design.

In the first and third sections, Bosselmann is at his best when he is discussing mapping techniques and their history. The opening chapters frame a distinction between "Concept and Experience" as "Two Views of the World" (p. 2) that have dominated the representation of urban space in the West since the Renaissance. Leonardo da Vinci's plan view (or ichnographic representation) of the Italian town of Imola first represented a city as an abstract form, not as the sum of its important structures or as a fragment of a larger space viewable from a single position within the urban space. The plan view is what made planning possible: "A professional looking at such a map could imagine the city as a system" (p. 22) and conceive the means to manipulate its parts in order to achieve desired effects. The polar opposite of the apprehension of the city as system, the representation of individual experience, is brilliantly instanced in Brunischelli's *trompe l'oeil* exercise in linear perspective, a view of the Baptistery and Piazza del Duomo from the main portal of Florence's Cathedral of Santa Maria del Fiore. Viewers looked through a small hole in the painting, believing it a portal to the city itself; what they actually saw was the painting reflected in a mirror.[3]

The rest of this chapter and the two that follow describe refinements of these techniques and attempts to combine them in order to render the visual experience of an engaged viewer. Multiple-point perspective may be used to make the viewer seem "part of the picture because with every move of the eyes a correct perspective is seen" (p. 9). Sitte and Lynch are praised less for their inquiries into the relationship of psychology and space, but for their innovations in representation, Sitte's "insistence on a three-dimensional survey of urban form" that compounds the abstract and experiential representational forms, and Lynch's attempt at a "unified" visual and written language in a diagram that charts patterns for future development on the several terrains of Martha's Vineyard (reproduced on p. 46). The Martha's Vineyard project, which concludes the second chapter, demonstrates the potential for new forms of "professional representation" (p. 47) to convey considerable planning detail to non-specialists. Neither perspective nor plan, Lynch's diagram of is not even representation *per se*; its presentation is devoid of any visual correspondence to the Vineyard's geography.

On account of their collective nature and their ability to register the effects of class, race, or other group affiliation on the perception of urban space, Lynch's "cognitive maps" deserve more study. Described as "essential to people's actual functioning and important to their emotional well-being" (Bosselmann, p. 42), many of these representations of the phenomenological experience of urban landscapes offer an alternative to the poles of single-point perspective and plan view. Because they show how people who navigate urban space everyday represent structure to themselves, they may be said to convey how the city functions. More importantly, these maps are capable of representing differences in the experience of urban space by members of different racial or socio-economic groups, which adds texture to our image of the social and economic "reality." A series of "citizen images" of Los Angeles drawn by residents of several urban and suburban neighborhoods as part of a City of Los Angeles Planning Department study of *The Visual Environment of Los Angeles* (pp. 9-11) revealed stark differences that, given the volume's political function, the authors of the study did not pursue. (But see Brodsly, pp. 26-31.)

Jan Gehl's visual documentation of pedestrian pat-

terns in the center of Copenhagen's shopping district over a span of decades (reproduced on p. 44) records "how changes of the physical spaces influenced the use of the spaces" (p. 45). While they suggest the painstaking research that William H. Whyte undertook on pedestrian activity in New York, Gehl's work (or Bosselmann's representation of it) makes no distinctions among urban types, as Whyte did. Bosselmann's interest lays in the use of these studies for "designing permanent, expanded pedestrian networks in other cities" (p. 45), but we never learn how successful the transfer of the model to other cities has been or what changes had to be made, given social, cultural and climatological differences among cities. Certainly, the annals of planning are filled with examples of such failed transfers. It would be interesting to learn what economic and social factors (p. 44), in addition to the climate and the distribution of objects in space, determine the success or failure of public space projects. Here again, map of "citizen images" likely can tell us a lot about those three key determinants of such projects' success: location, location, and location.

Leaving these questions unasked, Bosselmann closes the first section with a chapter on "Images in Motion." The destination of this excursus is clear enough, the virtual urban realities that the ESL began producing in the early 1970s. We read a history of that undertaking, the labor that went into the creation of a virtual "view from the road" and the problems it encountered, such as the camera's narrow field of vision, cornering that viewers found too abrupt, virtual structures that were too uniformly new. The bulk of the chapter, however, is devoted to a different sort of attempt to represent motion through space. Combining representations of "experience" and "concept," Bosselmann creates a series of drawings that record what he saw on a regular walk through Venice, a path also represented as a dotted line on an ichnographic projection of that part of the city (pp. 54-60). This presentation is followed by a series of fourteen other ichnographic maps with walks of equivalent length marked on them, accompanied by captions that record the itinerary and the author's subjective sense of how long the walk seemed in comparison with his Venetian stroll.

The series of maps is at once too much and too little. Too much because they covered twenty-eight pages (a map on one page and a brief paragraph alone on the facing page). Too little because the essential point is that walks seem to take more or less time depending on the diversity of the scenery (p. 91); ichnographic projections do little if anything to prove this point, which is both intuitively obvious and on the evidence of this chapter not susceptible of objective representation. After all, the qualities of a built landscape that engage a particular stroller will vary greatly among individuals and classes. The choice of itineraries in the other cities is also curious; certainly, San Francisco offers quarters with a visual complexity closer to the Venetian experience than the chosen trip from the lobby of the St. Francis Hotel across Union Square Park to the Circle Gallery (pp. 64-65). Finally, while it may be true that "Western art traditionally represents conditions yet to be realized, the future and things associated with it … in the upper portions of pictures" (pp. 50-51), placing the past at the bottom of the canvas, the fact makes reading the strips from bottom to top of seven successive pages no easier. Indeed, why should Bosselmann bow to convention when he seeks an improved realism and when E. H. Gombrich (mistakenly identified in the text as "Erich Gombrich" (p. 187) showed us years ago, (*Art and Illusion*, pp. 68-74), how convention has functioned in urban representation as a barrier to "realistic" representation?

Bosselmann's conclusion from these experiences, that designers in fact "have remarkable power to affect the perception of time by arranging objects in space, by setting dimensions, designing textures, selecting colors, and manipulating light" (p. 91), seems at once a logical consequence of the research and an overstatement. Manipulation of the listed variables seems equally a recipe for an *unrewarding* experience of "postmodern" superficiality. I particularly wonder if the subjective experience of time is related to a time-sense existing in the built landscape, the visual and *cognitive* traces of actual history that designers are powerless to simulate. The question for the designer might instead be to imagine ways of not creating an ensemble. Years ago, Lynch suggested that because "the city is not built for one person but for great numbers of people, of widely varying backgrounds, temperaments, occupations, and class," that urban environments must be diverse, non-specialized, and plastic (pp. 110-11). More recently, Richard Sennett contrasted "places full of time" with New York's Battery Park City, which "is planned according to the present enlightened wisdom about mixed uses and diversity" (p. 193) but is too much a whole to allow striking variation or anything unpredictable. Someone interested in the subjective experience of time should compare the experience of duration on a city street, a typical mall, and the Universal CityWalk, which represents an extreme manipulation of visual variables.

I do think that *Representation of Places* would have been a better book had it pursued further some of the issues it raises with respect to the subjective experience of time and space and the epistemological foundations of

environmental simulation. Bosselmann could have done so without making the book that much longer (or larger, considering the number of full-page illustrations and the amount of white space on many pages). He might have spent more reflection on words like "reality," "realism," and "representation,"[4] particularly because the questioning of these terms (in the social sciences and the humanities, anyway) makes problematic the "neutrality of position" that he recommends to simulation professionals. In what sense is a presentation "neutral," instead of more or less persuasive? How does one distinguish professional neutrality from a "neutrality of values–that would be neither possible nor desirable" (p. 201)? Bosselmann writes as if the politics of disinterest had not been problematized. [Venice and power.] The virtue of *Representation of Places* is that it raises these issues at all, when it would have been possible to focus on technique at their expense.

Notes:

[1]. Under "Like" and "Dislike," there are entries for "Nothing." Responses of "liked nothing" are entered under "Like," while "disliked nothing" is tabulated under "Dislike."

[2]. A footnote to sends us to Schorske, who states simply that Sitte "brought to thought about the city ... a sensitivity to psychic states" (p. 25).

[3]. Were the viewers actually fooled, or were they enthralled by something they knew to be an artifice. The same question is raised about accounts of early film audiences; see Gunning.

[4]. The one extended attempt to discuss realism vs. reality is problematic. To show that "the relationship between the two is characterized by limitations and contradictions" (p. 165), Bosselmann relates Goethe's disappointment on learning that Palladio's rendering of the Temple of Minerva is, as a later commentator says, "a Platonic projection of what he intended to find" (p.160). Bosselmann responds that, "Depending on the viewpoint, Palladio's projections may have a basis in reality," and that Palladio "may well have known the temple's dimensions and how they would be experienced" (pp. 162, 164) and therefore combined ratios measured from different perspectives into he front elevation that Goethe knew. He thus enrolls makes Palladio as "apparently an empiricist" (p. 165) and suggests that "If Palladio was right, so was Goethe" (p. 165). But in what sense was Palladio "right" when by the measures Bosselmann elsewhere uses the drawing is inaccurate?

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