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Unlearning Ableism: Design Knowledge, Contested Models, and the Experience of Disability in 1970s Berkeley

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Abstract
This article explores the design pedagogies developed through the alliance between disability activists at the Center for Independent Living (CIL) and a number of faculty led by Raymond Lifchez at U.C. Berkeley in the 1970s and 80s. Founded by Bay Area activists including disabled students at U.C. Berkeley, the CIL provided a critical platform for advocacy and services within the disability community. In a number of seminars and studios, Lifchez and others followed the initiatives of the CIL, documented the transformation of the built environment by disabled individuals in Berkeley, and incorporated their experiences in the design process. Rather than approaching disabled individuals as bearers of special needs, a number of specific pedagogical strategies explored their expertise and resourcefulness and incorporated them as informants, consultants, and designers. Supported by archival sources, oral histories, and publications of the period, this article contributes to ongoing discussions concerning the relationship between design and the environmental and social construction of disabilities as well as to the definition of design and architecture expertise. These pedagogies critically mobilized models to advance partial and flexible design interventions and simultaneously transformed the classroom into a model that challenged the naturalization of able-bodiedness in the built environment.

Keywords: disability—United States of America—embodied experience—pedagogy—model—design review

Introduction

Consider this photograph of a design review taking place in the 1970s in the design studios of Wurster Hall, at the College of Environmental Design (CED) at the University of California, Berkeley (**Figure 1**).[1] As it has been customary since the tradition started in the École des Beaux Arts, students gather around the work they have produced in the studio and discuss it with outside experts invited as critics.[2] A rather small but diverse group listens as the studio instructor, Raymond Lifchez, highlights a specific aspect of the project under discussion. A large model is at the center of the conversation—providing access to a three-dimensional representation of an architectural project and the design of its interiors.

A bearded man in his late twenties, Peter Trier, sits in a wheelchair with his head leaning back. He uses a wheelchair due to a hereditary muscular atrophy. A strap around his body helps him remain erect.[3] While critics in architectural reviews are usually members of the profession, Trier was a young Spinoza scholar completing his graduate studies at Berkeley. However, if his presence challenges the calibrated performances of the review—which Dana Cuff has defined as a "formal ritual"—it is also because, to date, disabled individuals are barely represented either in the architecture profession or in academia due to

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Fig. 1 Studio review for Architecture 101: Social and Environmental Factors in Design at the College of Environmental Design, U.C. Berkeley (ca. 1978), with critics including professor Raymond Lifchez and Peter Trier among others. Courtesy of Raymond Lifchez.

structural barriers, as David Gissen has discussed.[4] The logics of the review "ritual" are key to the socialization of students into architecture—to their introduction to a set of codes and practices that architects define as their own. Reyner Banham considered the review an "attitude forming" context, essential in the shaping of architecture and its pedagogy as a "black box."[5] As a consequence, these socializing rituals many times "sacrifice public responsiveness for intraprofessional strength," as Cuff argues.[6] Consultants or clients are rarely invited to reviews and prospective users or members of the different constituencies affected by the projects discussed are also, for the most part, absent.

So, what prompted Trier's participation in this design review? What was the expertise that he was expected to bring into the discussion? And how did it contribute to or challenge the expertise of architects and designers at stake in reviews? In this article, I address these questions by contextualizing this scene within the design culture developed by the disability community in the Bay Area in the 1970s. Lifchez engaged that culture and incorporated it into his own teaching at the CED. His sensitivity towards diverse minority groups was grounded by his own upbringing. Born in Columbia, South Carolina in 1932, a son of a Polish father and Latvian mother, both Jews, Lifchez had been raised by an African American caregiver after the early passing of his mother. He studied first at the University of Florida and then at Columbia University, where he was mentored by diverse figures, including architecture historian Rudolf Wittkower, and was influenced by figures such as urban theorist and architect Percival Goodman.[7] After some formative travels, Lifchez taught first at Pratt Institute under Sibyl Moholy-Nagy and then at the School of Architecture at Columbia University, in a moment in which students were protesting in support of civil rights. He recalls being beaten by the police in the 1968 uprisings and being later involved in what he called "the School's reconstruction."[8] However, finding himself isolated there and upon the suggestion of his colleagues, he left for U.C. Berkeley—first to study city planning and then joining the faculty in 1972.

Lifchez's collaborations with the disability community in Berkeley have been discussed in recent histories of design and disabilities in the United States: Bess Williamson has

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located Lifchez in the history of Bay Area activists and those coalescing around the Center for Independent Living working towards accessible urban spaces and housing options and has emphasized the way in which this work "prioritized disabled people's experiences and input."[9] Aimi Hamraie has highlighted Lifchez's contribution to specific ways of making at stake in that pursuit of access and the forms of "epistemic activism" unfolding in the "new fields of research and the social relations between experts" characteristic of that same context.[10] Building on their work, and aligned with recent literature on design and disabilities that focuses on "how people interact with the world, its objects and services," as Jo Gooding has characterized it, this article focuses on Lifchez's contribution to design and architecture teaching and situates it within disciplinary discussions, established pedagogies, and the institutional frameworks of the university.[11] The embodied knowledge brought by disabled individuals into the classroom questioned the figure of the architect as an expert as well as the discipline's contemporaneous emphases as it called for partial and flexible design interventions. I focus on the use of physical models in the design process and the classroom as a living model as a challenge to architecture knowledge and a contribution to shifting understandings of disability.

Architects and designers had conventionally framed the disabled body as a "problem" for them to "solve," following a medical model by which the disability is located in individuals that are deemed in need of repair. A social model of disability, which started to be articulated at the time of Lifchez's pedagogy, alternatively proposes that the "problem" is not the individual but rather the social and architectural barriers that frame their body as disabled.[12] Pushing further, scholars and activists have increasingly worked to position disability as "a set of practices and associations that can be critiqued, contested, and transformed," as Alison Kafer has proposed with a political and relational model of disabilities.[13] By appropriating the term "cripple," some have proposed to use the term "crip" to politicize the definition of disability and challenge what Robert McRuer has framed as the ideology of "compulsory able-bodiedness."[14] While limited in its dissemination and changing focus in 1987, Lifchez's teaching might help evaluate the way in which architecture and design pedagogies and practice gave form to these shifting notions of disability and how they position themselves in relation to ableist paradigms, not only through their output but also through their very methods.

Design for Independent Living

The University of California, Berkeley was at the center of these shifts before the scene with which I started. In the midst of the civil rights movements and the demonstrations unfolding in the area since the early 1960s, a number of disabled students contributed to question the medicalization of disabilities and to claim their own agency.[15] Following this medical paradigm, the University offered residence to these students at the campus' Cowell hospital. One student, Ed Roberts, challenged that paradigm, however, by living there as a resident with the help of attendants, rather than as a patient.[16] Roberts was soon joined by John Hessler, Herb Willsmore, and a growing number of disabled students who, although segregated from others, initiated networks of support amongst themselves and developed their political consciousness.[17] Their work built on the energy that defined the U.C. Berkeley campus at the time with the demonstrations that challenged the limitations imposed on student free-speech. The "Rolling Quads"—as they called themselves—demanded greater independence and participation, with the struggle "of the body against the institution" that characterized contemporaneous student revolts being "all the more real," as Williamson has

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proposed.[18] The forms of organization tested within the hospital eventually led first to the Physically Disabled Students Program at U.C. Berkeley and, later, to the foundation of the Center for Independent Living (CIL) beyond the confines of the University in 1972.[19] Run by and for disabled people, the CIL and the Independent Living movement more broadly, countered the isolation and medicalization of disabled individuals and fostered their integration into the community.

The CIL played a key role in advocacy projects at the time, led by students and other activists, including Hale Zukas, David Konkel, and Judith Heumann. A disability rights activist, Heumann had founded Disabled in Action in New York in 1970 with which she led the protests challenging Richard Nixon's opposition to Section 504 of the Rehabilitation Act of 1973. Section 504, which was developed to expand the civil rights laws of the 1960s, prohibited discrimination against people with disabilities in programs that received federal financial assistance. Heumann moved to Berkeley in 1975, where she started a Master's program in Public Health and joined the CIL.[20] While these members expanded the constituencies represented in the CIL beyond wheelchair-using students and graduates, the engagement with other minorities living in the area, including people of color, was more limited.[21] Some note that the Center neglected impoverished neighborhoods in nearby Oakland despite attempts by Elaine Brown, chair of the Black Panthers Party, to bridge their struggles.[22] Notable exceptions, however, include the existence of a Black Caucus at Berkeley's CIL, led by Donald Galloway, and a small and short lived East Oakland branch of the CIL, led by Brad Lomax (a disabled member of the Black Panthers Party).[23]

Beyond advocacy projects, the CIL and the disability community in the Bay Area led the transformation of the physical environment, including small ramps on the sidewalk borders to make the streetscape accessible, known as curb cuts. Roberts recounted their experience: "When we first talked to legislators about the issue, they told us, 'Curb cuts, why do we need curb cuts? We never see people with disabilities out on the streets. Who is going to use them?'"[24] In 1973, the CIL managed to have the City of Berkeley build 125 new curb cuts at locations of the Center's choice, completing a fully accessible sidewalk route—a groundbreaking intervention for the United States.[25] With the transformation of the physical environment and the organization of support structures, Berkeley became what activist and film-maker James LeBrecht has described as a "promised land […] where you could live independently" making evident that it was the built environment and not their disabilities that prevented the participation of individuals in society.[26]

Following this impetus and soon after arriving to U.C. Berkeley, Lifchez joined ongoing efforts by the Committee for the Removal of Architectural Barriers to determine what could be done to make the campus accessible. Other faculty members were already making similar efforts. Frederick Collignon, for example, contributed to shaping the 1973 Rehabilitation Act and collaborated with the CIL from his position at the Institute of Urban and Regional Development at Berkeley.[27] Lifchez's work with the Committee started before the approval of Section 504 of the 1973 Rehabilitation Act, but helped make U.C. Berkeley's buildings comply with the new regulations. Rather than trusting his own expertise as an architect, Lifchez used what he called "performance testing" as a research method, relying on the observations of disabled individuals for each of the campus buildings. Lifchez linked this research to his teaching, with a course introducing students to the techniques mobilized in the research. All research teams included both non-disabled and physically disabled individuals, who together developed their work through distributed questionnaires and collected their observations in floor plans

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and information tables.[28] Ensuring that disabled students had a leading voice in the process, Lifchez aimed to challenge the figure of the architect as an expert operating under what he called "administrative paternalism"—an attitude he had experienced in New York when working for the Department of Health and Mental Hygiene in the State Hospital at Wards Island.[29] While Lifchez recalls spending considerable time on the hospital grounds interacting with disabled individuals and others that had no alternative place to live, he understood that he was asked to operate from a position of technocratic authority that he now aimed to overcome. The report not only questioned the location of knowledge—which the study had proposed would emanate from disabled individuals—but also the very nature of disability and its reduction to technical concerns. In fact, in spite of the seemingly bureaucratic and conventional nature of the documents produced by the Committee, the study was defined as an "avant-garde" approach to the built environment, with the understanding that, "[o]nce the University environment is accessible to all, attitudes toward the physically disabled […] are more likely to change."[30] The study thus clarified the relationship between the physical environment and the social construction of disability (**Figure 2**).[31]

The CIL also worked to empower the life of disabled individuals providing referrals to attendants that would help disabled individuals live among other members of the Berkeley community.[32] In spite of seeking to facilitate the "independence" of disabled individuals, the emphasis of the movement was different from the pursuit of autonomy, rehabilitation, and assimilation. The CIL facilitated different forms of inter-dependence within the community that sought to allow individual members to develop their own modes of living. Disabled individuals materialized a number of interventions in their spaces of residence to facilitate these modes of living, whether defined and built on

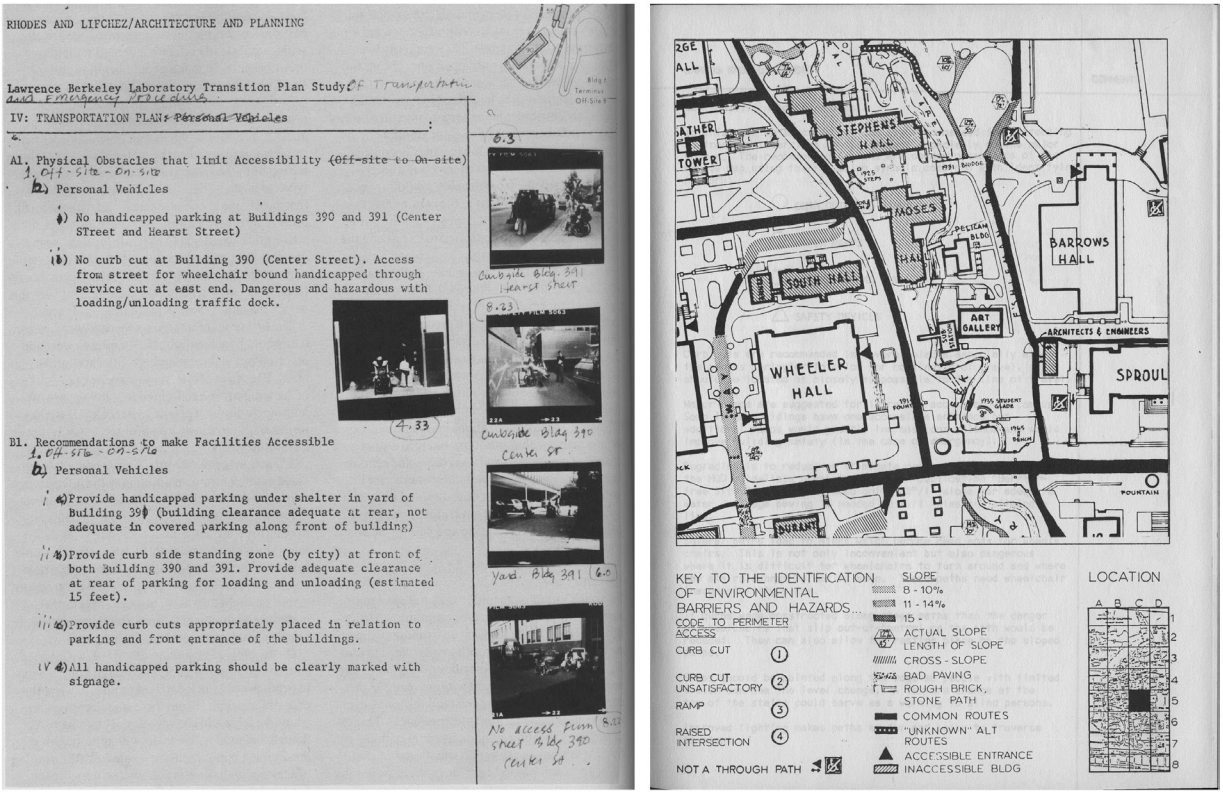

Fig. 2 Site evaluation worksheet for The Lawrence Berkeley Laboratory Transition Plan Study (ca. 1975); Office of Programming and Architectural Services, *Identification of Architectural Barriers and Other Environmental Hazards to Physically Disabled People*, University of California, Berkeley (1976). Courtesy of Raymond Lifchez.

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their own or with the assistance of architects, such as Sally Swanson, who contributed to design the offices of the CIL on Telegraph Avenue.[33]

Understanding the leadership of the disability community in the transformation of their own living environments, Lifchez and his students conducted more than 800 interviews with photographic and video documentation. These materials were collected in *Design for Independent Living*, which Lifchez co-edited with Barbara Winslow.[34] Winslow, a PhD candidate at U.C. Berkeley's CED at the time, collaborated with Lifchez on several of his initiatives. The study focused on several individuals with varied lifestyles and expectations. And yet, all of them were white wheelchair users and most linked to U.C. Berkeley—a limited perspective that disability justice advocates have described as characteristic of the disability rights movement.[35] The study covered a number of activities and areas of life, ranging from constructions of intimacy and grooming to socializing. The study was developed, just as the report, in seminars dedicated to the topic, with students engaging disabled individuals to learn about their behaviors, skills, and organizational networks.[36] The interventions described in the book included tools, furniture, and architectural adaptations of interiors. Illustrations presented interventions such as a Hoyer lift and a ramp along with scenes of care such as a massage (**Figure 3**). Many of the individuals smile at the camera or converse with Lifchez, seemingly proud of these "world-altering practices" that Aimi Hamraie has called "crip technoscience."[37]

The study was modeled on ethnographic methods of analysis, with disabled individuals engaged as "informants." Lifchez and Winslow referred to their method as "interactionism," which both embraced and reframed the logics of ethnography: "[It is] not observing; it is being with."[38] Their approach built on a growing interest in the social sciences at the CED, with the hiring of sociologist Richard Seaton in 1966 and the inauguration of a new curricular area in 1969 with the PhD concentration "Social and Behavioral Factors in Architecture and Environmental Design" led by Roselyn

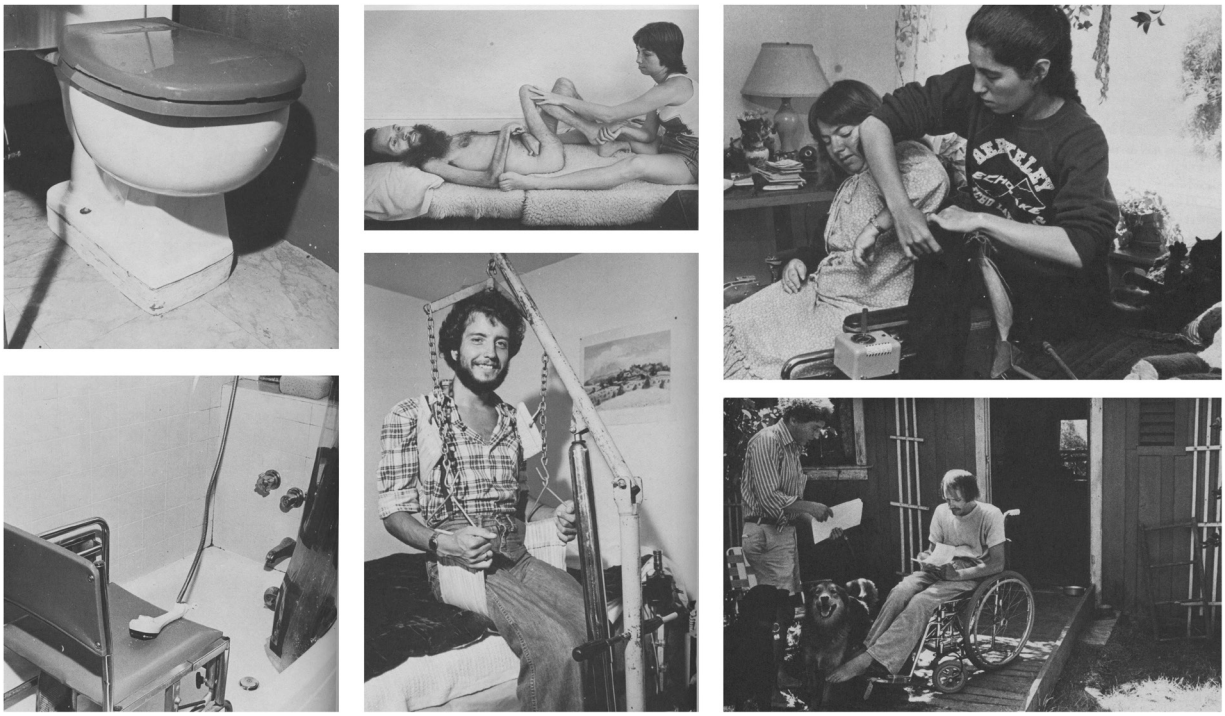

Fig. 3 Documentation of environmental transformations and networks of care collected in Raymond Lifchez and Barbara Winslow, *Design for Independent Living*: *The Environment and Physically Disabled People* (1979). Photographs by Jane Scherr, Andrea Bernstein, and Multimedia Center. Courtesy of Raymond Lifchez.

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Lindheim.[39] Galen Cranz, who joined the CED in 1975, came to reinforce these interests and was the main proponent of ethnographic methods within the Architecture Department. In her work, she insisted that participants in studies needed to be "asked (rather than observed)."[40] Lifchez and Winslow borrowed this emphasis as well as the way in which professor Cooper Marcus explored the "values and assumptions" implicit in a person's relation to the environment.[41] Lifchez and Winslow defined a series of techniques to develop this sensibility including the "interview in place" and the "performance interview."[42] Radical as these research methods were, however, they did not challenge the relation between interlocutors and the hierarchies that they imposed, which in this case were mediated by the very definition of disability.[43]

Visual documentation was critical to the research, and students combined the conversations with informants with still photographs and timelapse films. In their book, Lifchez and Winslow also featured illustrations of the equipment used in the research, including cameras attached to wheelchairs, which privileged the viewpoint of the informants (**Figure 4**). Rather than merely documenting the individual's movements and behaviors, these representations aimed to operate as "projective" tools, triggering conversation and alliances with informants.[44] In fact, the research aimed to open designers up to the perspective of disabled individuals and their goals, rather than approaching their needs and behaviors to pursue their assimilation.

Expertise at stake

Lifchez incorporated these perspectives in the team-taught undergraduate studio Architecture 101: Social and Behavioral Factors in Design. The course, which Lifchez led since he joined the College in 1972, was offered every quarter to close to 100 students and incorporated other faculty including Winslow (who became a lecturer at the College from 1979 to 1987) and a number of PhD students as teaching assistants. The studio matched the goals of the new curricular area, which Lindheim explained as that of "train[ing] architects to be sensitive to the social and behavioral implication of their designs […]."[45] Dismissing any attempt to have architecture shape specific behaviors, following what Joy Knoblauch has defined as "psychological functionalism" for a

Fig. 4 Preparation of a film journal with Super 8 camera mounted on a wheelchair (ca. 1975). Photograph by Raymond Lifchez. Courtesy of the author.

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number of earlier American architecture practices, the studios explored the relationship between the body and its environment as well as the behaviors and values associated with that relationship.[46] Lifchez, writing with Dennis G. Williams, emphasized how the diversity of those behaviors and values required a new approach to the education of the architect: "It was easier to be an architect when […] everyone believed that all aspired to the same way of life—that exemplified by the white upper middle class. This is no longer true."[47]

Along with other pedagogical initiatives at the time, the studio increasingly focused on architecture's role in the definition of disability and in response to it.[48] Critical to the development of this focus was the participation of a disabled student, Mary Ann Hiserman, in this undergraduate course. Lichez relied on the embodied knowledge she and other disabled individuals brought to the class rather than design manuals, such as the 1961 *American Standard Specifications for Making Buildings and Facilities Accessible to and Usable by the Physically Handicapped* (published by the American Standards Institute based on research by Timothy Nugent, director of the Rehabilitation Education Center at the University of Illinois) or *Designing for the Disabled* (sponsored by the Royal Institute of British Architects and authored by Selwyn Goldsmith, an architect partially paralyzed after contracting polio).[49] Lifchez dismissed the codifications provided by manuals as being too proscriptive, since he regarded accessibility "as a quality of experience" rather than a set of technical limitations.[50] While Lifchez did not mention Nugent's work, he referenced Goldsmith's since, as Elizabeth Guffey has discussed, Nugent aimed to "'neutralize' the effects of disability, while Goldsmith challenged the "unquestioned assumptions about the value of normality and independence"—a project with which Lifchez aligned.[51]

Within an approach that he discussed as "humanism," Lifchez questioned the abstract and neutral definition of the "user" that manuals helped codify, in favor of their more unique definition as members of different social groups and bearers of distinct identity.[52] Lifchez and his co-instructors most typically described users as "clients," and defined their identity as inhabitants including their race, age, professional activities, and disabilities, among others. In this aspect, Lifchez's work was different from user-oriented design practices and ergonomic studies of Henry Dreyfuss and Alexander Kira, both of whom privileged dimensional and mechanical analyses of the user.[53]

Following an expanded approach, the studio never defined individuals solely by their disability. Trier, who was a frequent collaborator of the studios, eloquently argued how "[m]y being disabled is interesting insofar as it interacts with everything else I'm trying to do and be […]."[54] Lifchez aimed to challenge stereotypes of the disability community, presenting students with their lives as "active people, [with] distinctive personality and social and sexual identity."[55] Trier's own personality brought him to display his "unconventional lifestyle," with which he wanted to invite students to question their "bourgeois sensibilities."[56] Another studio collaborator, Cheryl Davis, highlighted that she thought students should understand her "frustration of being unable to get to a terrific sale on lingerie"—a challenge to their expectations.[57] Accounting for the diverse sensitivities of disabled individuals, the studio embraced the impetus towards "mainstreaming"—a term used to define the goal of disabled individuals to have similar opportunities to those non-disabled.[58] Even more, the studio seemed to pair that impetus with a complementary project of "cripping," that is, challenging hegemonic ableist behaviors supported by design and architecture. At stake in questioning the understanding that not all clients "aspired to the same way of life" was what

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Alison Kafer has defined as an essential characterization of crip logics, that is, a challenge to "the presumption of agreement […] that we all desire the same futures."[59]

Design exercises typically started with the analysis of "scenarios," which aimed to link "act and environment."[60] This approach was not without a context at the CED, where Christopher Alexander's anti-mechanistic ethos had a broad influence in design teaching. Writing some years later, Alexander described his pursuit as a "union of yourself with what the world is made of, or union of yourself with other people, or union of yourself and things"—a "union" that can be easily traced in Lifchez's pursued link.[61] In spite of this alignment, Alexander expressed skepticism with the "humanistic" approach sponsored by Lifchez and others in the College, that he thought would be easily adopted by corporations and introduced in the very mechanistic logics that they tried to counter.

Substituting the conventional architectural studio brief, defined as a program and a site, the "scenarios" considered in the studio addressed instances of a specific social concern that were both situated and embodied.[62] These instances were represented in scale models, which defined the bodies and artifacts that participated in different articulations, traced interactions, and increasingly incorporated more detailed definitions of the built environment—with a particular focus on furniture and interiors (**Figure 5**).[63] Projects resulted from the aggregation of these different scenarios and specific design inventions responding to them, rather than emerging from an overall formal or typological exploration. Similarly to the scenarios, the projects were characteristically developed in models, typically at 1/8" = 1'-0" and 1/2" = 1'–0" scale. This large scale aimed to facilitate the detailed definition of interiors and outdoor environments, as well as their transformation, which students pursued throughout the semester. The models were discussed in reviews that increasingly incorporated disabled individuals as critics. Rather than merely being considered as prospective inhabitants, disabled individuals were also granted a voice in the design process. Photographs of the studio repeatedly feature disabled individuals attentively listening, providing feedback, and engaged in conversation with the students around the models (**Figure 6**).

Being the privileged forms of representation used in the studio, models mediated this participation. And yet, these artifacts did not seek to anticipate the relationships between individuals and the built environment—granting architects control over them.[64] Rather, they gained value through the process of their making. As Lifchez and Winslow argued, it was the "collaborative" use of different media "by the designer and his informants within a participatory process, [through which] they provide the means for testing values and assumptions against the larger public."[65] Models, following Albena Yaneva, open up the work of architects and allow them to engage with other actors, as "objects over which negotiations and conflicts take place."[66] Through these models, the studio presented the built environment as "an arena where social conflicts, often generated by the environment itself, are played out," as Davis argued.[67]

The contributions of disabled individuals around these models gained prominence at the same time that the role of the architect as expert was revised. It was the very expertise of disabled individuals that was highlighted instead, as they were expected to participate as "design consultants." Davis's role, for example, was not limited to that of a prospective "client" for she had experience working with architects in a state agency developing housing for individuals with disabilities.[68] While initially asked to participate

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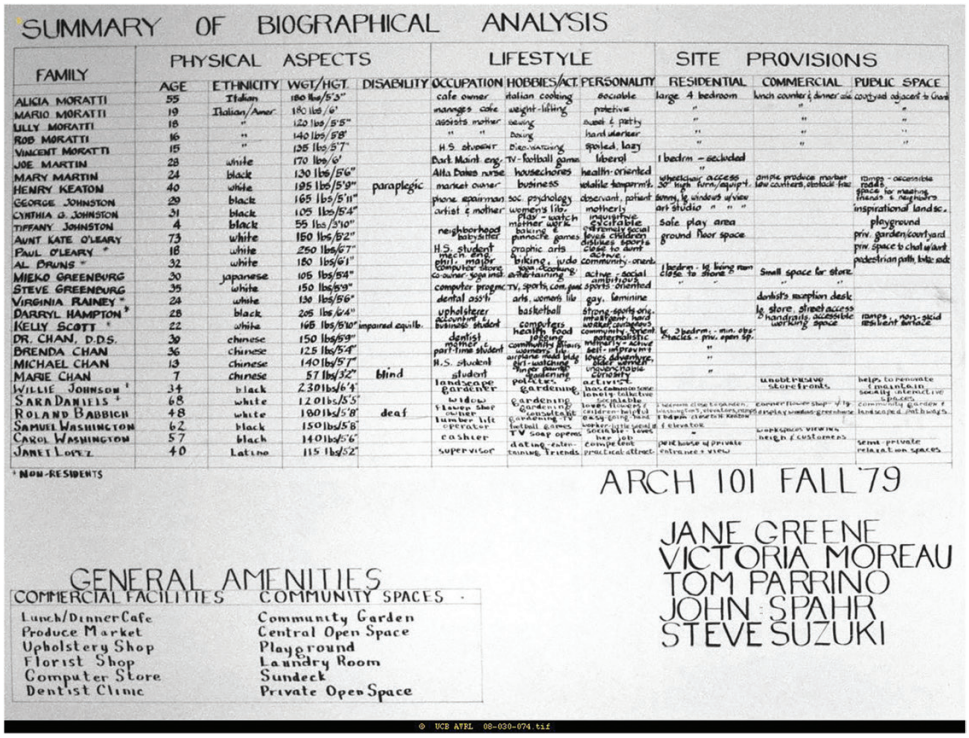

Fig. 5 Definition of characters participating in scenarios and models developed in Architecture 101: Social and Behavioral Factors in Design at the College of Environmental Design, U.C. Berkeley (ca. 1978). Courtesy of Raymond Lifchez.

for free, the expertise of disabled individuals in the studio was compensated thanks to funds that Lifchez obtained from the Exxon Education Foundation.[69]

The role of disabled individuals was not without conflicts: students soon discovered that the expertise over the built environment was many times filtered by the forms of

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Fig. 6 Studio reviews for Architecture 101: Social and Behavioral Factors in Design at the College of Environmental Design, U.C. Berkeley (ca. 1978). Courtesy of Raymond Lifchez.

production used in the studio, with which disabled individuals were initially not familiar. Even beyond the development of certain literacy to read specific documents, some media posed physical obstacles for the consultants: models, for example, many times required non-disabled bodies for their appreciation, and students developed design inventions for their appreciation—ranging from mirrors to tactile maps. Consultants, on their part, were equipped with sophisticated artifacts to provide their feedback.[70] And yet, the expertise with which disabled individuals would contribute was not clear from the outset. Davis questioned the fact that instructors expected their participation to "organically" lead to productive results: "you are the experts, the design consultants were told, but what did that mean? It seemed a hollow encouragement, offering no guide to the nature of their expertise."[71] It was the very nature of "expertise" that was at stake, for what was emphasized was their personal "experience"—challenging the distinction between the assumed objectivity of the former versus the subjective condition of the latter.

The role of the consultants disturbed the power dynamics within design studios: consultants expressed their concern with the credibility of their own personal experience in relation to the "knowledge" of instructors, students only reluctantly incorporated their feedback, and instructors many times found consultants "a challenge to their authority."[72] This challenge accompanied a larger initiative by the disability community in Berkeley, which Hamraie has explained as "an epistemological critique of expertise, authority, and objectivity."[73] While this initiative was first defined in response to medical expertise, here we see the architect as another professional that was "more likely to be knowledgeable about a person's limitations than about his capacities"—a tendency that the class sought to counter.[74]

With this participation of disabled individuals, the studio sought to simultaneously support them in the projection of their own futures while incorporating their knowledge—in a radical reversal of the way in which conventional pedagogies approach the design process, even if maintaining the hierarchies between the figure of the designer and that of the "informant," "client," and "consultant" as well as the unquestioned distinction between "disabled" and "non-disabled." And yet, as a significant conclusion of the forms of inclusion pursued, the participation of disabled individuals expanded to eventually lead to their attendance to the studio as designers themselves, when disabled students began joining the class.[75] Former students remember the transformative presence of disabled students, with the classroom

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becoming a context of design in and of itself in order to define the necessary spatial transformations and the required forms of support.[76]

A mainstreaming laboratory

Through these different techniques, design knowledge was defined as both situated and embodied—with the experience of disabled individuals being impossible to substitute: if design manuals were dismissed, so too were exercises that typically had non-disabled students modeling the experience of disability through so-called "simulation workshops." Lifchez particularly criticized the idea that students could "try on" a disability in order to understand the behaviors of disabled individuals. He argued that the exercises failed to encompass the resourcefulness of disabled individuals and neglected "the weight of cultural and social prejudices and expectations" which shape disability in the first place—embracing not only the environmental definition of disabilities but also its social dimension.[77]

If personal experiences could not be disembodied or typified, generic building types were also rejected within the logics of the studio. Types, it was argued at the time, allowed architects to address social concerns while maintaining their knowledge and authority within disciplinary grounds. But Lifchez and his peers rejected this notion. As U.C. Berkeley Professor Donlyn Lyndon argued, types sought to "categoriz[e] the experience of many generations of builders into definitive generic forms that can give direction (and authority) to their own work."[78] Lyndon criticized the understanding that "the cultural memory of our society is embedded in these types," since, he argued, they "can be inimical to those whose interests have not been served by a tradition of building that fits only the needs of dominant segments of society."[79] Lyndon's work, together with other critical figures such as Charles Moore (with whom Lyndon, William Turnbull, Jr. and Richard Whittaker shared the firm MLTW in Berkeley between 1962 and 1970) decisively shaped Lifchez's design sensitivities with their challenge to normative high modernism and their emphasis in "placemaking."

Rejecting typical solutions, Lifchez tested spaces with the disabled individuals themselves.[80] And yet, the knowledge gathered in those tests seemed insufficient to arrive at solutions that he characterized as "barrier free"—responding not to one client, but open to all. This inquiry matched the contemporaneous pursuit led by disabled architect Ronald Mace with his firm Barrier Free Design in the 1970s. Mace significantly contributed to the pursuit that was framed, starting in the 1980s, as "Universal Design"—a term he helped disseminate.[81] In the words of Lifchez and Davis, this pursuit challenged the modes of thinking of architects:

> It is […] when all disabilities are to be taken into account, when the client is Any Person (abled-bodied and disabled, child and eighty-five-year-old), that architects usually find the charge overwhelming. Where does one begin? What assumptions can one make about needs? What questions are to be asked, and of whom?[82]

In order to address these questions, the studio did not only challenge the role of architectural types, but more broadly questioned the building as a unified scale of intervention. In fact, the diverse modes of research and inquiry that Lifchez developed did not provide knowledge about buildings, but rather resulted in partial observations that led to tactical, hybrid, and flexible design interventions in the built environment. An example of such an approach, the accessibility guide "Getting There," which Lifchez co-authored, prioritized partial observations rather than general guidelines at the scale

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of a building.[83] Moreover, the guide resisted presenting these interventions as objective or neutral, but rather represented them through illustrations that situated design suggestions in relation to specific characters and narrations (**Figure 7**). These illustrations were significantly different from Mace's own drawings for state sponsored code-development projects, some of which were constructed as stop-motion recordings of movements similar to those used by Kira and others largely inspired by the Architects Graphic Standards.[84]

This shift in the nature of design knowledge had come as a result of the transformed logics of its production. As Bruno Latour has suggested, the outcomes of a "laboratory" cannot be disentangled from the operations performed within it.[85] Critically transforming the practices of the studio, Lifchez questioned the sources of information mobilized by designers and their translation into projects. Importantly, the operation of "translation" was simultaneously being discussed in the field of ethnography. James Clifford described the translation from the experiences accumulated in ethnographic studies and anthropological knowledge as "complicated by the action of multiple subjectivities and political constraints beyond the control of the writer" and resulting in "a specific strategy of authority."[86] Similarly, Lifchez's challenge to the architects' "authority" questioned their own forms of translation from diverse forms of analysis into design projections, by opening up the process to participated forms of engagement and mediation. What we could consider as a "mainstreaming laboratory" was built through those operations. And while the efforts of "mainstreaming" in the context of education are conventionally understood to appeal to an introduction of disabled individuals within the frameworks of general education, here that integration was allowed to challenge the nature of architecture and design pedagogy, now characterized by situated knowledge and participated interventions resulting in non-hegemonic projections.

This challenge to disciplinary authority was not without tensions within the College. Early after arriving at U.C. Berkeley, Lifchez's "outstanding" teaching abilities were highlighted, but the Architecture Department also received "reports of some reservations both from students and faculty which must be reviewed."[87] A larger concern permeated throughout the College during those years regarding the fragmented nature

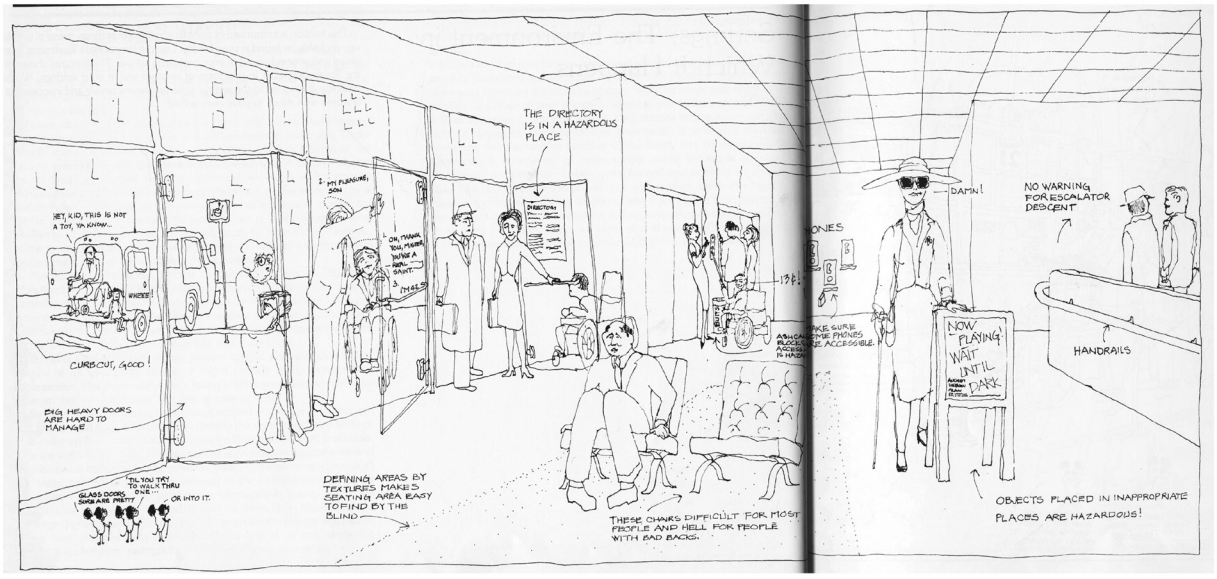

Fig. 7 Accessibility guidelines published in Raymond Lifchez, Dennis Williams, Chris Yip, Michael Larson, and Joanna Taylor, *Getting There: A Guide to Accessibility for Your Facility* (1979). Courtesy of Raymond Lifchez.

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of the expertise provided. In 1973, the College Dean William Wheaton reflected on the "[c]ontinued fragmentation of the College along departmental lines" and "[f]ailure to develop a unified undergraduate curriculum."[88] The architect as a unifying expert and architecture as a synthesizing discipline seemed to be under threat. These concerns grew in the next years: a 1978 report established that "[t]he program requires a strong technical and social/behavioral base and while the latter is in existence and operating well, the former, the technical base, has in recent years been patched together with the assistance of temporary lecturers."[89] The interests that Lifchez among many others were developing, were understood to have taken too much space at the expense of the "technical" areas within the curriculum—which were essential to legitimize the knowledge imparted at the College.

The laboratory built within the studio did not aim to provide architects a new role as experts, contributing to their authority by expanding the constituencies they could serve. Rather, the studio helped build a space in which the design process could be opened up to different knowledges. All throughout, it was a dislocation of the designers' authority that was ultimately at stake in these pedagogies: as Lifchez put it, the goal of the studio was not to train "rehabilitation experts," but rather to rehearse "the ability to elicit information relevant to the design process."[90] This goal was not without parallel within the College, but was rather aligned with a broader concern to give voice to the community, both through post-occupancy evaluations and participatory processes. The Black Students Association, for example, demanded at the time to have students train in "community participation" working to address concerns "from [the community's] perspective."[91] Simultaneously, however, some faculty understood "community and design [to be] mutually antagonistic," dismissing those efforts.[92] These participatory practices were also questioned outside the College: some students remember tensions at People's Park, an impromptu community garden on land that U.C. Berkeley wanted to use to build sport fields.[93] They recount being received with skepticism by the community gathering there, which saw them as allies of the different administrative bodies seeking to displace them.[94] Not only the knowledge but also the alliances of architects were central to different disputes. Rather than following the pursuit of disciplinary legitimation characteristic of postwar American education institutions, this "mainstreaming laboratory" defined architecture and design as assisted, engaged, and networked practices.[95]

In 1987, the funding provided by the Exxon Foundation ran out and the Architecture Department revised its curriculum. After her important contribution in the studio, Winslow left Berkeley. And while she continued to focus on user experience in ways clearly informed by Alexander's work, she did not center her work around disabilities.[96] According to Lifchez, the new curriculum "marginalized disability to simple accessibility issues"—assimilated into the forms of "technical" knowledge it was originally developed to challenge.[97]

A living model

In the midst of these pedagogical experiments and disciplinary reconfigurations, it was disabled individuals that led to structural reforms. In 1977, CIL members spearheaded the protests in response to the failure of the Nixon, Ford, and Carter administrations to develop the necessary regulations for the implementation of Section 504. Disabled individuals occupied the San Francisco Federal Building of Health, Education, and Welfare in 1977—in what turned out to be the longest sit-in in a federal government office

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in U.S. history to date. Peter Trier described the event as an occupation in which new socialities were not only discussed, but were tested in space: "It was a beautiful experience characterized by shared emotions and loving concern; the depth of commitment of a group who was willing to take serious risks with their health and well-being for the sake of a shared belief moved me profoundly."[98] Those experiences involved critical alliances between different civil rights movements: members of the Black Panthers, the Glide Memorial Church, and the Gay Men's Butterfly Brigade, among others, participated in the sit-in.[99] Together, these groups contributed to probe the relationship between their bodies and space that architects and designers have traditionally sought to control. In fact, some of the individuals had to live without the equipment and attendants that regularly assisted them.[100] When Mayor George Moscone aimed to intervene and brought air mattresses and hoses with shower heads to the building, he faced the objections of the Health, Education and Welfare regional director Joseph Maldonado, who complained: "We're not running a hotel here.'"[101] And yet, rather than relying on others to figure out the conditions framing their lives, as in a hotel, disabled individuals unfolded their own expertise over the built environment just as they had done outside the sit-in.

Writing retrospectively, disability rights law and policy advocate Mary Lou Breslin described the sit-in as "a living role model," in which disabled individuals were "living out the purpose that [they were] trying to embody in [the Section 504] regulations—that purpose was being experienced and exercised in the building itself."[102] The relationship between the physical models discussed in the studio and the "living role model" of the sit-in raise questions regarding Lifchez's pedagogy. Did the physical models developed by his students contribute to question and transform the contexts of exclusion and oppression that defined disability? Or did they de-politicize the frictions introduced by the knowledge of disabled individuals by abstracting them from those very contexts? A provisional evaluation of these pedagogies would need to recognize that the most significant model constructed by Lifchez was not any of the architectural structures built to scale with cardboard, but rather the design studio itself. It was the studio, with its challenge to traditional roles and methods, that upended established environmental and social hierarchies with the redefinition of the "attitudes" and "rituals" that characterize architecture and design pedagogy and practice—contributing towards unlearning ableism.

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of design and architecture education, and is one of the editors of *Radical Pedagogies* (MITP, 2022) (Graham Foundation Grant 2019). His work on disabilities is central to his recent contribution to the 2021 Venice Biennale, "Your Restroom is a Battleground" and the installation "Aging Against the Machine" within the 2022 exhibition Reset: Towards a New Commons at the Center for Architecture in New York.

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Notes

1 I want to thank Kathleen James-Chakraborty for initially pointing me to the work of Raymond Lifchez at U.C.Berkeley. I have developed this project thanks to the support of different protagonists both at U.C. Berkeley and different members of the disability community. I want to particularly thank Greg Castillo, David Gissen, James LeBrecht, Raymond Lifchez, and Sally Swanson.

2 Joan Ockman, *Architecture School: Three Centuries of Educating Architects in North America* (Cambridge, MA: MIT Press, 2012), 10.

3 Raymond Lifchez and Barbara Winslow, *Design for Independent Living: The Environment and Physically Disabled People* (New York: Whitney Library of Design, 1979), 24.

4 Dana Cuff, *Architecture: The Story of Practice* (Cambridge, MA: MIT Press, 1992), 122 and David Gissen, "Inclusion in Architecture. Why are there so few disabled architects and architecture students?," *The Architects Newspaper* (June 15, 2018). Accessed July 5, 2018. https://archpaper.com/2018/06/disability-education-of-architects/.

5 Reyner Banham,"A Black Box: The Secret Profession of Architecture" in *A Critic Writes: Essays by Reyner Banham* (Berkeley, Los Angeles, London: University of California Press, 1999), 294.

6 Cuff, *The Story of Practice,* 122. Cuff was educated in Berkeley during the period discussed in this article. Together with Lifchez, she co-edited the special issue of the *Journal of Architectural Education* 35, no.1, "With People in Mind: The Architect-Teacher at Work" (Autumn 1981).

7 Raymond Lifchez in conversation with the author (July 30, 2020). At Florida University, Lifchez obtained his BArch (1955) while at Columbia he obtained both a Master's of Science in Architecture (1957) and a Master's in Art History (1967).

8 "Raymond Lifchez, Educator in Architectural Access, University of California, Berkeley," an oral history conducted by Susan O'Hara in 2000, in *Architectural Accessibility and Disability Rights in Berkeley and Japan* (Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 2004), 66 [65-98] and Sharon Sutton, *When Ivory Towers Were Black: A Story About Race in America's Cities and Universities* (New York: Fordham University Press, 2017), 72.

9 Bess Williamson, *Accessible America: A History of Disability and Design* (New York: New York University Press, 2019), 91.

10 Aimi Hamraie, *Building Access: Universal Design and the Politics of Disability* (Minneapolis: University of Minnesota Press, 2017), 132.

11 See Jo Gooding, "Review of *What Can a Body Do? How We Meet the Built World; Accessible America: A History of Disability and Design; Making Disability Modern: Design Histories*," *Journal of Design History* 34, no. 1 (March, 2021): 70 [69–74].

12 Paul Abberley, "The Concept of Oppression and the Development of a Social Theory of Disability," *Disability, Handicap, & Society* 2, no. 1 (1987): 5–19.

13 Alison Kafer, *Feminist, Queer, Crip* (Bloomington: Indiana University Press, 2013), 9.

14 See Robert McCruer, *Crip Theory: Cultural Signs of Queerness and Disability* (New York: New York University Press, 2006), 3. The term "crip" was already in use by activists in the 60s and 70s, and Raymond Lifchez adopted it in his vocabulary. See Lifchez and Winslow, *Design for Independent Living*, 9.

15 Before the Free Speech demonstrations on campus in 1964, Berkeley students had started to organize in the mid 1950s in response to different political issues. See Liam O'Donoghue, "How a little-known Berkeley group sparked the 1960s student movement," *Berkeleyside*

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(December 12, 2018). Accessed December 12, 2020, https://www.berkeleyside.com/2018/12/12/how-a-little-known-berkeley-group-sparked-the-1960s-student-movement.

16 "Edward V. Roberts, The UC Berkeley Years: First Student Resident at Cowell Hospital, 1962," an interview conducted by Susan O'Hara in 1994, *Disability Rights and Independent Living Movement Oral History Series: University of California's Cowell Hospital Residence Program for Physically Disabled Students, 1962-1975. Catalyst for Berkeley's Independent Living Movement* (Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 2000): 9–15 [1–55]. See also Williamson, *Accessible America*, 99 and Joseph P. Shapiro, *No Pity: People with Disabilities Forging a New Civil Rights Movement* (New York: Three Rivers Press, 1993), 41–49.

17 Herbert R. Willsmore, "Student Resident at Cowell, 1969–1970, Business Enterprises Manager at the Center for Independent Living, 1975–1977," an interview conducted in 1996 and 1999 by Susan O'Hara, *Disability Rights and Independent Living Movement Oral History Series: University of California's Cowell Hospital Residence Program for Physically Disabled Students, 1962-1979. Catalyst for Berkeley's Independent Living Movement* (Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 2000):178–79 [148–237].

18 Williamson, *Accessible America*, 105.

19 Shapiro, *No Pity*, 50–58 and Williamson, *Accessible America*, 100–105, 110–11.

20 Judith Heumann with Kristen Joiner, *Being Heumann: An Unrepentant Memoir of a Disability Rights Activist* (Boston, MA: Beacon Press, 2020), 70–71.

21 See Corbett Joan OToole, *Fading Scars: My Queer Disability History* (Berkeley, CA: Reclamation Press, 2019), 32.

22 Elaine Brown, interviewed by the Paul K, Longmore Institute on Disability (July 26, 2014), *Patient No More* Exhibit, quoted in OToole, *Fading Scars*, 32.

23 Susan Schweik, "Lomax's Matrix: Disability, Solidarity, and the Black Power of 504," *Disability Studies Quarterly* 31, no. 1 (2011).

24 Ed Roberts quoted in Doris Zames Fleischer and Frieda Zames, *The Disability Rights Movement: From Charity to Confrontation* (Philadelphia: Temple University Press, 2001), 40.

25 See Council of the City of Berkeley, Resolution No. 45, 605 (1973), *The Berkeley Revolution. A digital archive of the East Bay's transformation in the late 1960s and 1970s*, https://revolution.berkeley.edu/resolution-45605/#menu-main-nav (Accessed December 3, 2020). See also Bess Williamson, "The People's Sidewalks: Designing Berkeley's Wheelchair Route, 1970–1974," *Boom* 2, no. 1 (Spring 2012): 49–52.

26 See Ignacio G. Galán and James LeBrecht, "Crip Camp. An Interview with Jim Lebrecht," *ED* n.3, "Normal" (2020): 22–27.

27 Frederick C. Collignon, "Disability Rights and Independent Living Movement Oral History Series Builders and Sustainers of the Independent Living Movement in Berkeley," an interview conducted by Mary Lou Breslin in 1997, *Disability Rights and Independent Living Movement Oral History Series: Builders and Sustainers of the Independent Living Movement in Berkeley: Volume IV* (Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 2000), 72–158.

28 Office of Programming and Architectural Services, *Identification of Architectural Barriers and Other Environmental Hazards to Physically Disabled People* (Berkeley, CA: University of California, Berkeley, 1976).

29 Raymond Lifchez, "Then and Now," in ed. Raymond Lifchez, *Rethinking Architecture: Design Students and Physically Disabled People* (Berkeley, Los Angeles, London: University of California Press, 1987), 12 [11–16].

30 Office of Programming and Architectural Services, *Identification of Architectural Barriers*.

31 Aimi Hamraie, "Universal Design and the Problem of 'Post-Disability' Ideology," *Design And Culture* 8 no. 3 (2016): 288 [285–304].

32 Doris Fletcher and Frieda Zames, *The Disability Rights Movement: From Charity to Confrontation* (Philadelphia: Temple University Press, 2011), 39; Shapiro, *No Pity*, 53–55; Aimi Hamraie, *Building Access*, 112.

33 Sally Swanson in conversation with the author (February 16, 2021).

34 Lifchez and Winslow, *Design for Independent Living*.

35 On the emphasis of disability justice see, for example, Sins Invalid, *Skin, Tooth, and Bone: The Basis of Movement is Our People. A Disability Justice Primer* (Berkeley, CA: Sins Invalid, 2019). A study published some years later by CIL member Michael Chacko Daniels focused on more diverse households including aging and non-white individuals. See Michael Chacko Daniels, *Ramps Are Beautiful: The Architecture of Independence* (Berkeley, CA: Center for Independent Living, 1982). The publication contained the contribution "Questions for users in designing a ramp" by Ken Mineau, a student of Lifchez's.

36 Cheryl Davis, "Using the User Well," in Lifchez ed. *Rethinking Architecture,* 96 [81–96].

37 Hamraie, *Building Access*, 16–17.

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38 Lifchez and Winslow, *Design for Independent Living*, 20. They borrowed their emphasis from American sociologist Herbert Blumer's response to the hegemony of positivism in the social sciences.

39 The program was strengthened thanks to a grant by the National Institute of Mental Health in 1970. See Roslyn Lindheim, Russell W. Ellis, Clare Cooper, and Jacqueline Vischer, *Final Report of Evaluation, Social and Behavioral Factors in Architecture and Environmental Design Department of Architecture, University of California, Berkeley in Fulfillment of Contract #T21 MH 12122 Experimental Training Program, Department of Health Education and Welfare US Public Health Service* (Berkeley, CA: Department of Architecture, University of California, Berkeley, 1975).

40 Galen Cranz and David Christensen with Sam Dyer, *A User-Oriented Evaluation of San Francisco's Public Housing for the Elderly* (Berkeley, CA: Center for Planning and Development Research, College of Environmental Design, University of California, Berkeley, 1977), 62.

41 Lifchez and Winslow, *Design for Independent Living*, 138.

42 Lifchez and Winslow, *Design for Independent Living*, 135–137.

43 Just as ethnomethodological critiques have argued, these studies might have proved the limited capacity of ethnography in accounting for the processes by which the object of the study (disability) had been constructed beyond environmental constraints. See, for example, Martyn Hammersley, "Ethnomethodological Criticism of Ethnography," *Qualitative Research* 19, no. 5 (October 2019): 578–93.

44 Lifchez and Winslow, *Design for Independent Living*, 139.

45 Lindheim et al., *Final Report of Evaluation,* 3. See also Clare Cooper Marcus, "Social Factors in Architecture, 1960-2004" in *Design on the Edge: A Century of Teaching Architecture at the University of California Berkeley* (Berkeley, CA: College of Environmental Design, University of California, Berkeley, 2009), 141–45.

46 Joy Knoblauch, *The Architecture of Good Behavior: Psychology and Modern Institutional Design in Postwar America* (Pittsburgh: University of Pittsburgh Press, 2020).

47 Raymond Lifchez and Dennis G. Williams, "Forward," *Journal of Architectural Education* 27, no. 2–3 (June 1974): 1. That challenge was captured in a number of contemporaneous pedagogical projects that destabilized disciplinary assumptions throughout the world. See eds. Beatriz Colomina, Ignacio G. Galán, Evangelos Kotsioris, Anna-Maria Meister, *Radical Pedagogies* (Cambridge, MA: MIT Press, 2022). In the United States, many of these projects aligned with the civil rights and liberation movements.

48 Victor Papanek, for example, engaged disabled individuals, mostly children, to challenge conventional design practices and their hierarchies. See Alison J. Clarke, *Victor Papanek, Design for the Real World* (Cambridge, MA: MIT Press, 2021), 202–205, 218–19.

49 See Elizabeth Guffey, "The Ideologies of Designing for Disability" in *Making Disability Modern: Design Histories*, eds. Guffey and Bess Williamson (London: Bloomsbury Visual Arts, 2020), 102–103 [101–112].

50 Davis and Lifchez, "An Open Letter to Architects," in *Rethinking Architecture*, 40 [35–52]. Lifchez and Winslow included a list of relevant literature in *Design for Independent Living*, 133.

51 Guffey, "The Ideologies of Designing for Disability," 105 and Selwyn Goldsmith, "The Disabled: A Mistaken Policy," *RIBA Journal* (1967): 387 in *Making Disability Modern*, 108. This emphasis characterized Goldsmith's revised edition of the manual, which shifted away from Nugent's work.

52 On the definition of the "user" in manuals, see Paul Emmons and Andreea Mihalache, "Architectural Handbooks and the User Experience," in *Use Matters: An Alternative History of Architecture*, ed. Kenny Cupers (New York: Routledge, 2013), 47 [36–50]. See also Avigail Sachs, "Architects, Users, and the Social Sciences in Postwar America," in *Use Matters,* 78 [69–84].

53 Henry Dreyfuss, *The Measure of Man: Human Factors in Design* (New York: Whitney Library of Design, 1960); Alexander Kira, *The Bathroom: Criteria for Design* (Ithaca, NY: Center for Housing and Environmental Studies, Cornell University, 1966).

54 Lifchez, "Then and Now," 15.

55 Peter Trier, "Dispelling Stereotypes," in *Rethinking Architecture*, 97 [97–107].

56 Lifchez and Winslow, *Design for Independent Living*, 19.

57 Cheryl Davis, "Disability and the Experience of Architecture," in *Rethinking Architecture*, 18 [19–33].

58 Lifchez and Winslow, *Design for Independent Living*, 19.

59 Kafer, *Feminist, Queer, Crip*, 3.

60 Lifchez and Winslow, *Design for Independent Living*, 143.

61 Christopher Alexander interviewed by Howard Davis, "Beyond Humanism," *Journal of Architecture Education* 35, no. 1 Raymond Lifchez and Dana Cuff eds. "With People in Mind: The Architect-Teacher at Work" (Autumn 1981): 22 [18–24].

62 See Lifchez, "From inside to outside: A Journey to Architecture," *Journal of Architectural Education* 27, no. 1 (Feb. 1974): 28 [27–36].

63 Raymond Lifchez in conversation with the author (June 2018).

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64 Historians and sociologists of science and technology have concerned themselves with the capacity of scale models to reproduce the performances of the objects that they represent. See Simon Schaffer, "Fish and Ships: Models in the Age of Reason," in *Models: The Third Dimension of Science,* eds. Soraya de Chadarevian and Nick Hopwood (Stanford: Stanford University Press, 2004), 71–98 and Matthew Hunter, "Modelling. A Secret History of Following" in *Design Techniques: Archeologies of Architectural Practice,* eds. Zeynep Çelik Alexander and John May (Minneapolis: University of Minnesota Press, 2020), 45–70.

65 Lifchez and Winslow, *Design for Independent Living*, 132.

66 Albena Yaneva, "Scaling Up and Down: Extraction Trials in Architectural Design," *Social Studies of Science* 35, no. 6 (Dec., 2005): 871 [867–894].

67 Davis, "Disability and the Experience of Architecture," 20.

68 Ibid., 32.

69 See "Raymond Lifchez: Educator in Architectural Access, University of California, Berkeley," 80–81.

70 Lifchez, "Clients as People," in *Rethinking Architecture*, 57 [53–65] and Davis, "Using the User Well," 93.

71 Davis, "Using the User Well," 83.

72 Ibid., 84–85.

73 Hamraie, *Building Access*, 114.

74 John Hessler, "Grant Proposal for the Physically Disabled Students' Program," 7 quoted in Hamraie, *Building Access*, 114.

75 Raymond Lifchez in conversation with the author (June 11, 2018). By 1977, there were already 450 disabled students in Berkeley. See Barbara Winslow and John Parman, "Report from Berkeley" *Progressive Architecture* 58, no. 10–12 (October 1977): 38.

76 John Parman in conversation with the author (August 21, 2020).

77 Davis and Lifchez, "An Open Letter to Architects," 45–46. More recent challenges to these exercises focus on their indifference towards disability's intersections with other forms of discrimination. Tobin Siebers, *Disability Theory* (Ann Arbor: University of Michigan Press, 2008), 28–29. Questions of intersectionality have particularly been raised from a racial perspective, denouncing what Chris Bell has called "white disability studies." See ed. Chris Bell, *Blackness and Disability: Critical Examinations and Cultural Interventions* (East Lansing: Michigan State University Press, 2011).

78 Donlyn Lyndon, "Preface," in *Rethinking Architecture*, xii.

79 Ibid., xiii.

80 Davis and Lifchez, "An Open Letter to Architects," 38–39. Davis and Lifchez referred referred to examples including the process rehearsed by Moore and Richard Oliver in the design of a house for a blind man and his family. Their explanation of the project includes a reference to Charles Moore, "Design for All People Conference," New York City (January 22–24, 1982).

81 Ronald Mace, "Universal Design: Barrier Free Environments for Everyone," *Designers West* 33, no. 1 (November, 1985): 147–52.

82 Davis and Lifchez, "An Open Letter to Architects," 39.

83 Raymond Lifchez, Dennis Williams, Chris Yip, Michael Larson, and Joanna Taylor, *Getting There: A Guide to Accessibility for Your Facility* (Sacramento: California Department of Rehabilitation, 1979).

84 See Aimi Hamraie, *Building Access*, 143–44.

85 See Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Cambridge, MA: Harvard University Press, 1987).

86 James Clifford, "On Ethnographic Authority," *Representations* 2 (Spring 1983): 120 [118–146].

87 "Faculty appointments and students requests" (February 20, 1973), Architecture Department Records, Environmental Design Archives, University of California, Berkeley.

88 "Minutes of the College Faculty Meeting" (October 30, 1973), Architecture Department Records, Environmental Design Archives, University of California, Berkeley.

89 Joseph Esherick, "1979-80 Faculty Targets/Academic Plan" (June 29, 1978), Architecture Department Records, Environmental Design Archives, University of California, Berkeley. Esherick, who designed in 1954 the James and Mildred Ackerman House in Greenwood Commons for wheelchair accessibility, was sensitive to Lifchez's concerns. See https://virtualcollections.ced.berkeley.edu/exhibits/show/greenwood-common/ackerman.

90 Davis and Lifchez, "An Open Letter to Architects," 43.

91 "Curriculum Proposal and Progress Report on Student Concerns by The Black Architectural Students Association" (February 7, 1973), Architecture Department Records, Environmental Design Archives, University of California, Berkeley.

92 "Minutes—Faculty (Regular) Meeting" (June 13, 1978), Architecture Department Records, Environmental Design Archives, University of California, Berkeley.

93 See Peter Allen, "The End of Modernism?: People's Park, Urban Renewal, and Community Design," *Journal of the Society of Architectural Historians* 70, no. 3 (September 2011), 354–74.

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94 Benjamin Clavan in conversation with the author (August 5, 2020).

95 Arindam Dutta has discussed the "institutional mechanics of legitimation" within postwar American architecture pedagogy in Arindam Dutta, *A Second Modernism: MIT, Architecture, and the 'Techno-Social' Moment* (Cambridge, MA: The MIT Press, 2013), 9.

96 That influence is evident in publications such as Max Jacobson, Murray Silverstein, Barbara Winslow, *Patterns of Home: Ten Essentials of Enduring Design* (Newtown, CT: Taunton Press, 2002).

97 "Raymond Lifchez: Educator in Architectural Access, University of California, Berkeley," 81.

98 Lifchez and Winslow, *Design for Independent Living*, 25.

99 The participation of the Black Panthers, who provided dinners to the occupiers throughout the sit-in, was central to its success. See OToole, *Fading Scars*, 32 and Schweik, "Lomax's Matrix."

100 Shapiro, *No Pity*, 67.

101 Ibid.

102 Mary Lou Breslin, "Confounder and Director of the Disability Rights Education and Defense Fund, Movement Strategist," an interview conducted by Susan O'Hara in 1996–1998, *Disability Rights and Independent Living Movement Oral History Series* (Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 2000).

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