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The Space of Ableism

VIEW

STARTING FROM "NEW NORMAL(S)": NON-NORMATIVE DESIGN METHODOLOGIES IN ARCHITECTURE EDUCATION

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Normative Bodies in Architectural Education ///

The human body has long been at the center of architectural discourse and design education. In Ten Books on Architecture, Vitruvius describes the ideal measure and proportions for the human body that subsequently shaped classical architecture for centuries. Around World War II, a culture of intensified orderliness and standardization began to infiltrate architecture. In response, Le Corbusier established the Modulor, an anthropometric system of measure for architectural space which mediated between metric and imperial scales. The system was codified in two books and was applied through the production of several of Le Corbusier's influential works. However, it is Ernst Neufert's book Bauentwurfslehre that has likely had the most pervasive impact on the conception of the human body in design education. The book, which is most commonly known as Neufert Architects' Data, was first published in Nazi Germany (1936) and led to Neufert's later collaborations with Albert Speer, chief architect to Adolf Hitler. The substantial document was designed as a reference for architecture students with the objective of enabling the rapid and systematic design of buildings. Embedded in the detailed and dimensioned diagrams of basic architectural typologies were prescriptive ideas of the appropriate size, proportion, and behavior of human bodies. Despite its problematic origin, the book has been reproduced through numerous German editions

and translations into other languages, ensuring its use in academic environments worldwide.

For architecture students, the illustrative diagrams filling the pages of Neufert Architects' Data or even Architectural Graphic Standards often serve as the primary, if not exclusive, reference for depicting the human body's relationship to the built environment. In the intense and subjective structure of any design studio, these manuals offer an objective "solution" for the human condition, providing every conceivable spatial configuration and appropriate dimension for the activities of the average body. With this architectural reference at hand and without real-world users to respond to, design students are liberated from engaging with the corporeal diversity of the human condition. The abstract nature of design studios, instead, tends to prioritize technical, formal, or programmatic methods for architectural exploration. As a result, the prescription for the body embedded in any architectural reference manual becomes the default building occupant.

Posthuman Subjectivities ///

The idealization of the body in architecture can be tied to humanism, a philosophical and ethical stance that redefined the human as a rational, liberal, and autonomous subject. While it released humanity from the structures of religious institutions, this redefinition has, over time, come to be understood as advocating human exceptionalism, elevating an idealized human above all non-conforming and non-human subjects. The exclusivity of this humanist conception of the body has influenced architecture for too long. In fact, our lived-realities are completely at odds with the normative bodies lauded throughout architectural history. In an era of rising global interconnectivity, we are becoming increasingly aware that we humans are interdependent organisms, reliant upon an ecosystem of technological, social, and environmental relations. In response, architectural education needs to actively destabilize the narrow humanist conception of building users as only white, straight, youthful, able-bodied, cisgender male figures, in favor of engaging new posthuman subjectivities within the design process.

In recent decades, posthuman theorists have critically deconstructed the gendered and racialized corporeal norms of humanism that have been used to continually exclude and enact violence against non-normative bodies. As an emerging ontology, posthumanism continues to evolve, diverge, and reform into new strands of thinking that advocate for the engagement of subjectivities previously excluded from definitions of the so-called human. These modes of thinking have infiltrated architectural theory, in some cases reframing humans as hybrid bodies, entangled with the technological systems and environmental conditions that sustain them. Donna Haraway's influential text A Cyborg Manifesto (1984), blurred the once rigid boundaries between human and machine, natural and artificial, allowing for a multiplicity of hybrid subjectivities to coexist. Several

decades later, Ariane Lourie Harrison's Architecture Theories of the Environment: Posthuman Territory (2013) extended the cyborg metaphor beyond the body to the built environment, redefining architectural space as a prosthetic to the posthuman figure. By doing so, Harrison implicated architecture, placing an increased responsibility on architects to understand and build for diversity in the human condition.

However, the same posthuman thinking has not infiltrated the institutions of architectural education with such success. Instead architecture foundation courses continue to teach the exclusionary humanist thinking of Vitruvius, Le Corbusier, and Ernst Neufert. What is needed are new methods for translating posthuman theory into academic education models that challenge students to engage, embody, and design for diverse subjectivities.

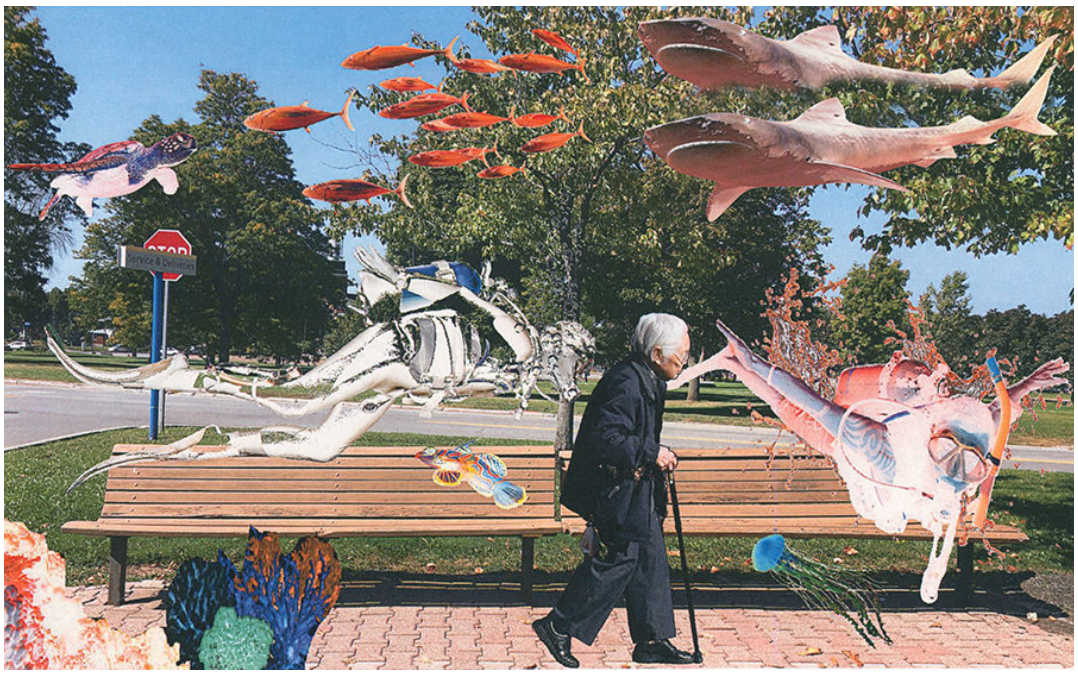
Lens of Aging ///

Through my research and teaching at the University at Buffalo School of Architecture & Planning, I focused on developing new posthuman-based design methodologies that take underrepresented subjectivities as a point of departure. Aging offered a critical lens through which to prioritize diverse embodied experiences. For the growing population of elderly North Americans, the process of aging alters their physical, sensorial, and cognitive capacities in varied and divergent ways. The accompanying physiological transformations — including musculoskeletal conditions (osteoporosis, arthritis), sensory changes (macular degeneration, loss of proprioception), and cognitive decline (dementia, Alzheimer's) — change how people perceive and navigate their environments. In an effort to sustain active living, individuals often turn to a growing market of assisted-living supports which include physical prosthetics, biological augmentation, and technological systems. This process of corporeal transformation and fortification requires older adults to continuously reorient their body's relationship to the built environment. The outcome is a population of what we may want to call cyborgs: elderly people entangled with a network of individuals, technologies, and spatial conditions to sustain their aging bodies within ableist environments.

The heterogeneous and intersectional conditions of elderly cyborgs provided a critical lens for integrating posthuman subjectivities into educational design processes. Students, who are most commonly young adults, lack the incarnate knowledge of old age however, it is an imaginable and hopefully future reality for each of them. Positioning the aging body as a focal point therefore challenged students to interrogate their assumptions about the human body, occupy embodiments different from their own, and multiply the perspectives through which they operate as designers. The pedagogical agenda took the form of two seminar courses that tested design-research exercises and workshops that framed the development of new design methodologies.

Design Exercises in favor of an Aging Population ///

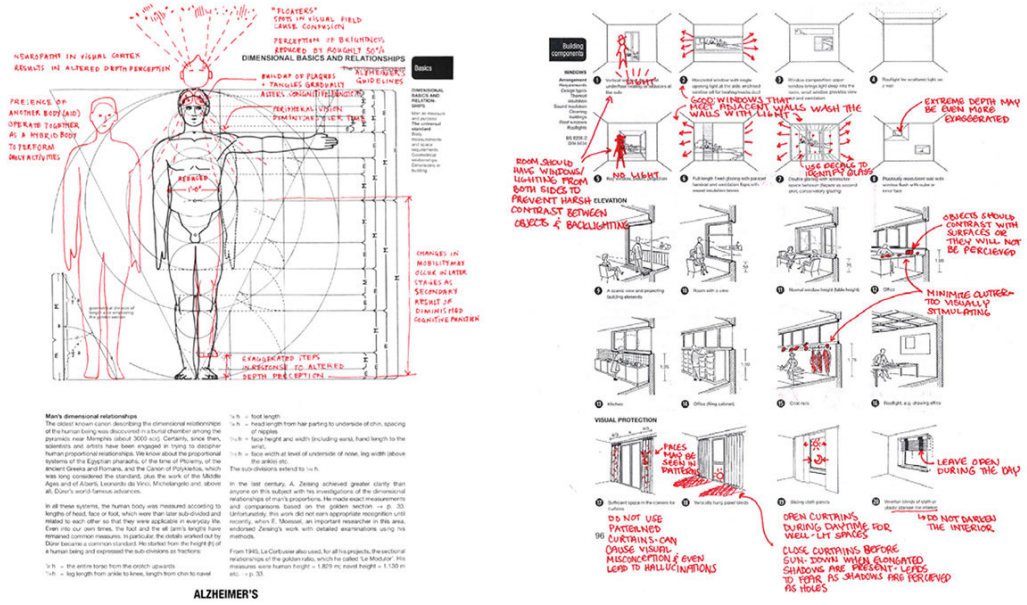
In the first seminar, students investigated the impacts of aging through successive design-research exercises. Aging modifies the human body through an often subtle process that alters stamina, strength, and ability. To understand these changes, each student researched how a specific aging-associated condition — including osteoporosis, hemiparesis, Alzheimer's, Lewy body dementia, presbypropria, and agnosia — alters the physical abilities, sensory perceptions, and social interactions of an affected individual.



"Embodying Umwelts": umwelt drawing imagining how the loss of proprioception (the ability to sense the relative position and strength of one's body) might affect an individual's perception of their environment. / Collage by Tiffany Fong. Seminar "Multiplying Perspectives" by Sarah Gunawan, 2017.

Embodying Umwelts: For the Embodying Umwelts exercise, students interpreted their research to imagine how older adults with differing abilities might perceive and navigate the environment through the construction of an umwelt representation. The exercise extended German biologist Jakob von Uexküll's concept of umwelt — in which organisms occupy a subjective phenomenal world unique to each species — to speculate on how different people perceive their environment. Students tested a variety of media including photo manipulation, cut-and-paste collage, video animation, and auditory compilation. Together, the series of umwelts attempted to embody the different experiences of people as they move from a subway platform through a campus and into a classroom. While it is impossible to accurately represent the perceptual worlds of diverse individuals, Embodying Umwelts sought to disrupt conventions of architectural

visualization and offer alternative modes that convey different perceptual worlds.



"Decentering Norms": redline annotations of Neufert Architects' Data from the perspective of an individual with Alzheimer's. / Selection of annotated pages by Rachel Mordaunt. Seminar "Multiplying Perspectives" by Sarah Gunawan, 2017.

Decentering Norms: The Decentering Norms exercise built upon a series of animations I produced called Animating Neufert "Normals," which critiqued the prescriptive and spatial discriminations latent in the architectural diagrams of Neufert Architects Data. The exercise then challenged students to select and further analyze twenty pages of Neufert Architects' Data from the perspective of a person affected by the age-associated condition being studied. The exercise leveraged the architectural practice of redlining, in which superiors mark the mistakes and irregularities in drawings in red pen for interns to laboriously correct. Students appropriated this technique to identify how the spatial conditions of Neufert's diagrams act to enable or disable bodies affected by aging. When the annotated pages were compared, both drastic incongruencies and productive overlaps between the varied spatial needs of impaired bodies emerged, calling into question the possibility of truly universal design objectives.

Each exercise was designed to encourage students to critically examine and rethink certain fundamental conventions that underlie architectural production, in particular representation methods and spatial standards. Starting from their semester-long research into aging experiences, students then constructed a speculative environment tuned to the specific needs, limitations, and desires of their studied embodiments. Through the process of design projection, students were challenged to generate

experimental representation methods and spatial parameters that disrupt their own design approach and allow for new creative processes to emerge.

The second seminar embraced evolving daily experiences of older adults as new and varied “normals.” The seminar began with a series of community workshops and weekly design-research exercises, each of which further questioned certain conventions such as language, representations of the body, or personal preconceptions. In response, students were tasked with developing alternate methods that were cognizant of the subjectivities of aging adults.

For many students, their grandparents remained their only reference for how older people live. At the beginning of the semester, it was therefore critical that students gain insight into the varied experiences of older adults. In the workshop Drawing Community, students engaged with three communities in the city of Buffalo through drawing and discussion about individual support networks and daily routines. The collective goal was to visualize how a diverse range of older adults perceive their shared community and spatial environment.

Elderly Entourage: In architectural drawings and renderings, depictions of people have long been used to convey the scale, program, or desired occupancy of a building. These isolated human figures, known as architectural entourage, have become increasingly available online but the vast majority depict able-bodied, fashionable, white people. These youthful figures are used around the world in architectural representations, setting a precedent for who belongs and who does not belong in future built environments. Several websites including justnotthesame.us and nonscandinavia.com have responded to the lack of ethnic diversity by providing free entourage of under-represented individuals.

Building upon this growing awareness, Elderly Entourage acted to increase the visual representation of older adults in architectural imagery. By depicting otherwise overlooked individuals in the speculative projections of future environments we can shape a collective imaginary that embraces and makes space for non-normative bodies. Students therefore produced entourage figures that depict the manifold activities and embodiments of senior citizens that should be considered in the systems of architectural production. Furthermore, students produced a collective lexicon in order to critically examine the often derogatory language through which old age is described. The collected language was used to construct varied descriptions for each figure in the Elderly Entourage, thereby disrupting stereotypical perceptions of older adults. The produced images are available for academic use on the website elderlyentourage.com. The objective is to expand Elderly Entourage through the use of images within the public domain, and eventually through direct engagement with older people through discussion and photography.

"Action Figures": cut-and-paste and digital collages reconceptualizing bodies as contingent assemblages, instead of static figures. / Collages by (1) Emma McAneny & Lauren Kennedy, (2) Alexa Russo, (3) Alexandra Sheehan & Kelsey Habla, (4) Lauren Kennedy, (5) Alexandra Sheehan, (6) Arisha Shahid. Seminar "New Normal(s)" by Sarah Gunawan, 2018.

Action Figures: Philosopher Gilles Deleuze, reflecting on the writing of Baruch Spinoza, grapples with the question, what can a body do? (Expressionism in Philosophy: Spinoza, 1990) Instead of contemplating what the body is, he advocates for the reconceptualization of the body as an assemblage of matter that acts and is acted upon by its environment. His question is a critique of conventional focus on what a body should be and reorients us toward engaging the body's potential for action. Action Figures extends Spinoza's question to ask: what can an aging body do? Through cut-and-paste collage, students transformed the representation of the aging body from a discrete figure to an assemblage of matter, from a static form to a system of contingent processes. The objective was to broaden thinking about the interdependent nature of the human body and open up the potential for technological and environmental hybridization.

The empathic understanding, representational skills, and diverse subjectivities which emerged through the workshops and exercises provided foundational tools for exploring alternative design methodologies. For the culminating project, students were challenged to design an Adaptive Environment Prototype (A.E.P.) that blurred the boundaries between building, technology, and environment in order to reposition architecture as a

responsive support to the aging body. Despite the dynamic and evolving nature of aging bodies, the environments we design to support older adults are often static, rigid in their desire for security and durability, and even nostalgic for past cultural and spatial conditions. The Adaptive Environment Prototypes challenged conventional design processes and offered dynamic systems for supporting older adults.

Exercise Interpretations & Reflections ///

Each exercise was an experiment, designed to instigate alternative modes of thinking, researching, representing, and designing. What resulted were varying degrees of engagement, progression, and misinterpretation by the students. The discussions and outcomes ultimately shaped the trajectory of the fellowship research, pushing it beyond the initial focus on aging towards broader pedagogical questions.

For example, the initial iterations of Decentering Norms produced very binary analyses in which students identified spatial conditions as either “good” or “bad.” Through further research and more descriptive analysis, we were better able to communicate the impacts of spaces designed for the average body on individuals with various aging-associated conditions. Alternatively for Action Figures, the initial constraints of producing a cut-and-paste collage with the materials provided and within a limited time period yielded provocative and highly varied results that began to reconceive the body as an assemblage rather than a discrete figure. However, for the second iteration students were allowed to construct digital collages, which yielded techno-optimistic bodies in which physical limitations were “fixed” using futuristic prosthetic and digital technologies. In response, we teased out and discussed the problematic assumptions embedded within the second series of Action Figures.

Over the course of both seminars, I witnessed several students develop a sense of empathy for the subjects they were engaging through their research. During the first semester in particular, the emphasis on specific, but overly medicalized, bodies served to enhance human-centered design thinking. However, without direct engagement with older adults experiencing these conditions, the emphasis also allowed students to perpetuate their assumptions about human experiences without being challenged by people who actually live those experiences.

"Secur.Biance": an Adaptive Environment Prototype (A.E.P.) designed to empower an individual with early-onset dementia to pursue independent activities with confidence and support. The deployable system be modified in response to the individual's physical, emotional or cognitive state during episodes of confusion or over stimulation in the urban environment. / Project by Lauren Kennedy & Emma McAneny. Seminar "New Normal(s)" by Sarah Gunawan, 2018.

New Normal(s) Call for Action ///

The fellowship explorations culminated in an exhibition called New Normal(s): Design Exercises for an Aging Population. The exhibition organized the collection of experimental exercises, public workshops, and design explorations around four pedagogical questions which emerged through the process:
How can designers multiply perspectives through which we design?
How can designers practice empathically within architecture?
How can design disrupt standards which underlie normative space?
How can design translate embodiments into inclusive environments?

New Normal(s) leverages notions of inclusive design, beyond the objective of universal inclusion, towards a deep interrogation of the normative assumptions embedded within architectural practice. Through the lens of aging, the exhibition offers alternative tools for engagement, representation, and speculation that seek to disrupt exclusionary design pedagogy and practice. Positioned within the central space of the University at Buffalo School of Architecture and Planning, it challenged future architects and planners to actively empathize with and advocate for diverse subjects through the conception and construction of the built environment. Together the four provocations served as the beginnings of a call for action for myself and all those responsible for and engaged in architectural education.

Multiply Perspectives: In order to displace the generic and anonymous user that continues to pervade architecture, we must multiply the perspectives through which we design in a manner that is deep, rigorous, and intersectional. We must challenge students to overcome the over-abstraction of the human body by understanding cultural,

racial, political, socioeconomic, and/or physiologically-produced differences not as something to be solved but as perspectives which are vital to designing inclusive environments.

Empathic Practice: Architecture is most commonly a practice of designing for others, which positions architects as outsiders of the embodied experience of future building users. In addition, the profession continues to be dominated largely by a white, male demographic, further externalizing the majority of practitioners from people whose experiences intersect with marginalizing conditions such as disability, race and age. Until we have a greater diversity of practicing architects whose embodied experiences reflect a wider range of possible building inhabitants, we must integrate empathy as an influential and ongoing part of the design process. Within academic environments we must overcome otherness by engaging with the people we claim to design for, asking challenging and sometimes uncomfortable questions, and learning from their subjective expertise.

Disrupt Standards: In a society where the cultural constructions of race, gender, and disability are being re-evaluated, the prescriptive standards embedded within architecture also need to be interrogated, dismantled, and reconstructed to include the breadth of the human condition. We must bring attention to the spatial discriminations embedded within systems of architectural production and develop alternative tools and design methods that engage, embody, and empower non-normative subjectivities in the design of the built environment.

Translate Embodiments: Architecture has for too long been a process of translating our understanding of the idealized body into built form. Only when we move from a humanist consideration of the body to an embrace of diverse embodiments in architecture, can we begin to design with and for a wider range of physical, perceptual, and experiential interpretations of the built environment. Translating divergent human embodiments into architectural environments therefore demands more than the construction of spaces that are inclusive of all bodies. It argues for a practice that emerges from people who have non-normative, embodied experiences to produce spaces that destabilize, re-orient, and radically reconstruct ableist environments.

The idealized body put forward by Vitruvius, Le Corbusier, and Ernst Neufert is deeply entrenched in the history, conception, and production of architecture. While these protagonists can be credited with centering the human within architecture, their narrow definition of what constitutes humanity has served to exclude and discriminate against non-conforming bodies. Architectural design curriculums need to reflect a profession that is accountable to all people — not abstract, anonymous, or idealized users, but real people with heterogenous, embodied experiences of the world.