History (and Other) Lessons for Retreat

As History Repeats Itself: What Can We Learn from the 1930s White Rocks Island Retreat at Hampton Beach, NH?

Author: Kirsten Howard (University of New Hampshire)

In this presentation, I draw comparisons between a 1930's case study about the managed retreat of the White Rocks Island neighborhood in Hampton, New Hampshire and the town's present-day conversations about how to implement managed retreat in its most vulnerable neighborhoods dealing with increasing high tide flooding due to sea-level rise. The White Rocks Island managed retreat effort, which took place through decades of coastal storm damage, public debate, and legal battles among residents, the municipality, and the State of New Hampshire, resulted in the demolition and relocation of residences and razing of streets and other infrastructure when the land was purchased by the State of New Hampshire and converted to Hampton Beach State Park. The land is managed today as some of the State's most popular public open space providing access to a large sandy beach on the Atlantic Coast. The historic case study exposes fascinating political challenges and social justice implications of this one-time buyout effort that was mostly forgotten lore until recently uncovered as part of the Town of Hampton's Coastal Hazards Master Plan process, in which managed retreat is recommended as an important option in the Town's toolbox for adapting to sea-level rise. Using sociological qualitative methods, I draw from archival research at the Hampton Historical Society and interviews with residents and experts to detail the White Rocks Island managed retreat project that converted an erosive, storm-ridden barrier beach area originally developed in the late 1800s as a "squatters" fishing camp settlement into a State Park. I then draw comparisons between the White Rocks Island case study and my ongoing work with the Town of Hampton as the Resilience Program Coordinator for the New Hampshire Department of Environmental Services Coastal Program. Hampton is currently summarizing results and options identified by a hydrodynamic flood model focused on its two most vulnerable neighborhoods—the town's consultant engineers have explicitly identified the option of managed retreat in both neighborhoods and recommend planning now for implementation beginning around 2035, if sea level rises at anticipated rates. Both the historic example and present-day work highlight the important roles that mobilized neighborhood advocates; trusted data and analysis; community capacity; political leadership, will, and priorities; and social power dynamics play in managed retreat efforts. I also highlight important differences between the White Rocks Island managed retreat effort of the 1930s and today's efforts, including differences in the severity of coastal damage, land use regulations, trust in government and science, civic engagement, and social justice awareness that suggest that executing a similar managed retreat effort today presents more feasibility challenges but may also present more opportunities to mitigate social inequities compared to a similar effort in the 1930s.

Co-Learning in Place: Social-Spatial Histories as a Tool for Equitable Resilience

Author: Erica Avrami (Columbia University Graduate School of Architecture, Planning, and Preservation)

Structural legacies of racism and social injustice are embedded in spatial conditions and built forms. Segregated land use patterns associated with restrictive covenants, mortgage lending, urban renewal,

environmental injustice, affordable housing, and other forms of exclusion persist within urban landscapes and are often reflected in the physical conditions of neighborhoods. Such exclusion can be perpetuated and amplified as communities confront the challenges of climate resilience, especially the specter of managed retreat. Without a deep understanding and recognition of these preexisting conditions, design and planning for climate adaptation and mitigation run the risk of reinforcing the continued spatial marginalization of vulnerable or excluded publics — especially people of color, the foreign-born, and the poor. Professionals dedicated to the design and management of the built environment play a frontline role in such adaptation and thus equitable resilience, but they are ill-prepared to address the community dynamics, social dimensions, and place attachments associated with climate adaptation and migration, let alone the structural legacies of exclusion that are codified in the existing built environment. Developing such capacities at institutions of learning and within the professions they educate constitutes a critical priority, one that can only be justly endeavored by working with communities in place to co-learn and co-create knowledge.

This presentation explores the use of deep interrogation and communication of socio-spatial histories as a platform for neighborhood-level climate adaptation and planning, as evidenced by work undertaken in a studio course at the Columbia University Graduate School of Architecture, Planning, and Preservation (GSAPP) in spring 2020. Premised on concepts of community-engaged learning and research, the studio applied the tools of the preservation field to understand and promote equitable resilience in the flood-prone waterfront community of Red Hook, Brooklyn. Students critically explored the diverse histories, narratives, and multiple publics represented in the built environment of Red Hook, historically and today. They deeply analyzed physical, social, and environmental change longitudinally, and charted legacies of exclusion that echoed throughout the community and spatial conditions of the neighborhood, which today is still starkly divided along racial and economic lines.
By focusing on collective spaces and community stories, such an approach provides a medium through which to understand place attachments and to engage multiple publics in the very challenging questions of what they would like to preserve, adapt, or sacrifice. By fully recognizing the legacies of injustice, it endeavors to give space and voice to past exclusion so that history is not repeated, and to afford a reparative dimension to neighborhood visioning and future-making.

Managed retreats by whom and how? Identifying and delineating governance modalities

Co-Authors: Christina Hanna (University of Waikato), Iain White (University of Waikato), Bruce Glavovic (Massey University)

Managed retreat has become a compelling policy imperative as climate change exacerbates socio-natural hazard risks and imminent harm looms for exposed communities. Retreats may be initiated over different times and scales using various instruments by actors, from the state to the private sector and civil society. However, in the absence of a coherent strategic vision, guiding frameworks, and capacity to manage retreats, at-risk communities, their elected representatives, policy makers, and planners are compelled to embark on retreat governance experiments. Consequently, retreat is perceived as a 'high regrets' policy imperative with potentially adverse impacts for community wellbeing, as well as political and professional risks. To help translate managed retreat rhetoric into reality, we present a governance framework that acknowledges the multiplicity of 'managed retreats.' We identify and delineate retreat modalities and clarify terminology, converging our framework with the international mobility literature to harness the valuable lessons from decades of human mobility practice.

Resilience, Race, and North Carolina's Post-Disaster Buyout Program, 1990-Present

Amanda Martin (NC Office of Recovery and Resiliency)

This presentation will examine issues of social equity and racial justice in North Carolina's post-disaster buyout program, from the dual (some sometimes dueling) perspectives of academic research and real-world implementation. I am currently Deputy Chief Resilience Officer for the State of North Carolina; I will present dissertation research conducted 2016-2019 as a doctoral student and I will discuss real-world barriers for moving from academic recommendations to implementation.

The research study focuses on the long-term implications of 4,000 buyouts implemented in North Carolina in the 1990s. This study found that buyouts were concentrated in African American neighborhoods; buyouts provided individual participants greater home values, reduced flood risk, and the opportunity to move to a lower poverty neighborhood. However, they also disrupted social networks. In addition, buyouts were linked to neighborhood-level disinvestment, racial turnover, and loss of histories and memory. These findings suggest several policy implications, including the need to ameliorate negative impacts accrued to buyout neighborhoods, which are disproportionately African American; support wealth-building benefits for homeowners; reduce intangible losses; and keep other options to reduce vulnerability on the table. In relation to these implications, I will discuss how North Carolina's current buyout programs were designed, and I will provide some thoughts about solutions to the gulf that remains between research and practice of managed retreat.

Retreating from wildfire: when does emergency evacuation become permanent?

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The suburban edges of cities and rural areas have an increasingly uneasy relationship with wildfire. A history and expectation of occasional fires and modest losses are very different to today's emerging pattern of frequent extreme fire weather, uncontrollable fires and heavy losses of lives, livelihoods and property. Historically, occasional heavy losses from Australian fires have been treated as exceptional and therefore no reason for fundamental change. Events this century and especially over the 2019/20 summer challenge this view. The fires were extreme, long lasting and seemingly unstoppable. The impacts were severe and systemic, cascading through communities, economies and ecosystems. Most Australians were impacted and some regions were in an emergency mode for months. Many were evacuated, under threat of evacuation for months or remain in makeshift accommodation. Livelihoods were disrupted or put on hold. Calls for fundamental change in how climate and fires are addressed were widespread. A key question concerns the point at which long established patterns of settlement and livelihoods become unsustainable? Major change requires a rethink on rural and suburban development and any transition brings questions of equity and justice. The post-fire enquiries have not grappled with these issues, but this discussion will be of paramount importance as communities plan for the future. This paper will examine these questions and specifically at what point emergency evacuation becomes permanent managed retreat.

Sea level rise policy as a question of history and place

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Conversations on sea level rise (SLR) adaptation have tended to focus on one of two policy extremes: 1) 'adaptation in place' where seawalls and other hard engineering solutions attempt to protect coastal development; and 2) 'managed retreat' where there is gradual or sudden abandonment of settlements in affected coastal areas (Titus 2011; Kousky, 2014; Rulleau and Rey-Valette, 2017). While this work provides a valuable starting point, relatively less work has engaged with the uneven, and ultimately place-based, histories of coastal development, management, and change that necessarily precondition any future responses to SLR. This paper addresses this gap by integrating geospatial, archival, and peer-reviewed data to reconstruct more than a century of shoreline hardening and armorization on Oʻahu, Hawaiʻi. Our findings suggest three core dynamics relevant to SLR policy debates. First, they point to the de facto policy of coastal land use intensification and adaptation-in-place that had already armorized much of the coastline by the early 20th century and which continues to shape coastal change despite the passage of the landmark Hawaiʻi Coastal Zone Management Act in 1977. Second, they highlight the ways in which shoreline hardening has typically functioned to render coastlines economically productive for homeowners, developers, and city and state officials while deflecting coastal harms, exclusions, and vulnerabilities onto others. Third, findings illustrate the complex intersections between built and natural environments and the cultures and politics of development that have animated highly distinct and place-based trajectories of hardening and socio-spatial change. We argue for the need to move beyond idealized future scenarios and ground debates on SLR policy in the diverse, dynamic, and de facto approaches to coastal management already in place. Doing so, we further argue, can broaden what is considered to be the domain of coastal policy while better accounting for and addressing the injustices embedded in existing trajectories of coastal change.