

Redevelopment, Replacement, Repair, Barriers and Potentials for Expanded Preservation and Reuse in Practices and Frameworks of Urban Planning

This dissertation critically examines contemporary urban redevelopment practices in Copenhagen. It addresses two interconnected phenomena. The first concerns redevelopment as both a historical and contemporary mode and model of planning, urban design, and architecture, and its relationship to broader urban and environmental discourses. The second concerns the potentials and barriers to expanding preservation, reuse, and repair within redevelopment, as shaped by changing practices of construction, demolition, replacement, and reuse in the context of ecological crises.

These questions are approached from two complementary angles. One concerns the broader ecological impacts of construction, preservation, reuse, demolition, and replacement. The other focuses on the institutional, regulatory, and cultural conditions that influence how such decisions are made, how value is attributed to the built environment, and how these attributions shape urban transformation.

In recent decades, urban redevelopment has emerged as a dominant planning and design paradigm across Europe, emphasising adaptation, densification, and concentration within existing urban fabrics. Copenhagen stands as a particularly illustrative example of this shift. Redevelopment is closely tied to broader social and cultural transformations: the economic restructuring of post-industrial cities, the renewed appreciation of inner-city living, and the rise of compactness and density as hallmarks of sustainability. Yet redevelopment also implies replacement, densification often entails the removal of existing structures to make way for new ones.

The ecological crises of the present have reframed these dynamics. The building industry's vast material and carbon footprint has drawn increasing attention to the environmental consequences of demolition and new construction. Within this context, preservation, reuse, and repair are gaining renewed significance as strategies for reducing material consumption, embodied emissions, and resource use. While often discussed at the scale of individual buildings, such strategies are orchestrated at the urban scale through planning and design frameworks that shape how cities grow and transform.

Redevelopment therefore serves here both as a subject in its own right and as a critical lens through which to examine how such processes unfold within current planning frameworks, and to explore the potential for alternative approaches.

The inquiry is simultaneously past-, present-, and future-oriented: it takes current practice as a point of departure, traces its historical formation over the past two decades, and uses these insights to explore possible pathways for future urban transformation.

The research is structured around three interconnected themes: (i) urban redevelopment as a dominant planning paradigm; (ii) the attribution of value within planning and regulatory frameworks, and the dynamics influencing demolition, replacement, and reuse; and (iii) the ecological implications of redevelopment in relation to material flows and climate impact.

Methodologically, the dissertation employs an interdisciplinary and mixed-methods approach, combining qualitative and quantitative analysis. It operates across scales, from city-wide patterns to specific neighbourhood and building conditions that shape redevelopment processes. Empirical material is drawn from three major redevelopment areas currently under construction in Copenhagen and is situated within broader theoretical frameworks from critical heritage studies, including values-based heritage and ecological inheritance, as well as from planetary urbanisation and political ecology.

The analysis identifies recurring situations of redevelopment and the underlying drivers that sustain them. It reveals both the scope and the limits of preservation and reuse within current urban development practices, showing how planning instruments and regulatory frameworks decisively influence what is retained, what is removed, and what is built anew. The findings point to persistent gaps between discourse, policy, and practice, gaps that constitute structural barriers to expanded preservation and reuse. Addressing these requires not only procedural adjustments but also a more fundamental re-evaluation of redevelopment as a planning paradigm.

Building on these findings, the dissertation looks toward alternative futures for urban planning and design grounded in ecological limits. This forward-looking dimension is developed through teaching and collaboration with students, employing critical-creative design pedagogy to explore how cities might evolve through reuse, repair, and transformation rather than demolition and replacement.

Denne afhandling undersøger kritisk nutidige praksisser for bytransformation og fortætning af eksisterende byområder i København. Den behandler to indbyrdes forbundne fænomener. For det første analyseres bytransformation og fortætning som et historisk og kulturelt fænomen inden for byplanlægning. For det andet undersøges potentialer og barrierer for at udvide bevaring og genbrug inden for bytransformation gennem praksisser for byggeri, nedrivning, erstatning og genbrug i en kontekst præget af økologiske kriser.

Disse spørgsmål undersøges fra to komplementære vinkler. Den ene omhandler de bredere økologiske konsekvenser af byggeri, bevaring, genbrug, nedrivning og erstatning. Den anden fokuserer på de institutionelle, regulatoriske og kulturelle betingelser, der påvirker, hvordan sådanne beslutninger træffes, hvordan værdi fastsættes i det byggede miljø, og hvordan dette former byens transformation.

Metodisk anvender afhandlingen en tværfaglig og mixed methods-tilgang, der kombinerer kvalitative og kvantitative analyser. Den opererer på tværs af skalaer, fra byoverordnede mønstre til specifikke kvarters- og bygningsforhold, som former transformationsprocesser. Det empiriske materiale er hentet fra tre større bytransformations- og fortætningsområder under udvikling i København og sættes i relation til bredere teoretiske rammer fra critical heritage studies, herunder values-based heritage og ecological inheritance, samt fra teorier om planetary urbanisation og political ecology.

Analysen viser både omfanget og begrænsningerne for bevaring og genbrug i nuværende byudviklingspraksisser og demonstrerer, hvordan planlægningsredskaber og reguleringsrammer i høj grad bestemmer, hvad der bevares, hvad der fjernes, og hvad der opføres på ny. Resultaterne peger på vedvarende kløfter mellem diskurs, policy og praksis, som udgør strukturelle barrierer for udvidet bevaring og genbrug. At adressere disse kræver ikke blot justeringer af procedurer, men også en mere grundlæggende revurdering af bytransformation og fortætning som planlægningsparadigme.

Med afsæt i disse resultater retter afhandlingen blikket mod alternative fremtider for planlægning inden for økologiske grænser. Denne fremadskuende dimension udvikles gennem undervisning og samarbejde med studerende, hvor en kritisk-kreativ designpædagogik anvendes til at undersøge, hvordan byer kan udvikle sig gennem genbrug, istandsættelse og transformation frem for nedrivning og erstatning.