

# *Minas, as in mines*

A HAUNTOLOGICAL APPROACH TO THE SITE OF DISASTER

**P5**

Alina Paias

**Explore Lab 33**

**First mentor**

Vanessa Grossman

**Second mentor**

Hubert van der Meel

**Third mentor**

Stavros Kousoulas



# Welcome

**A public presentation**

predicated on

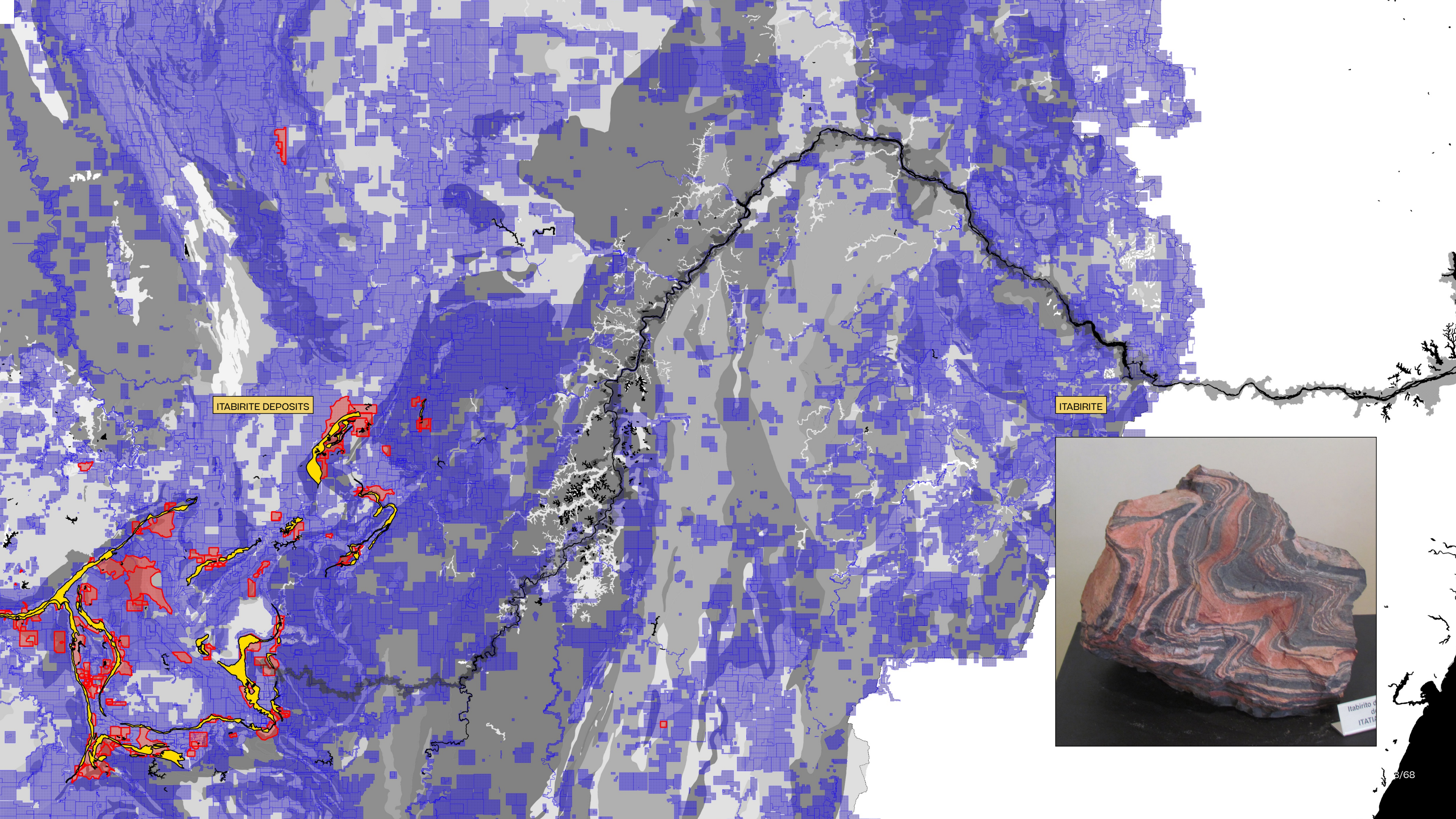
**an Ethics of Entanglement,**

or an attempt at

**an action-acknowledgement**

towards the ghosts in the Rio Doce valley.







*Matter is dividuated based on its ability to function as autonomous mineralogical and metallurgical units. This dividuation eradicates the supplementary actions of geology, as a geochemically communicative matter-state that is already situated in the earth and the relational work of the inorganic. Geochemical matter has different kinds of porosity and promiscuity ... It aggregates, often in toxic ways when it is unearthed or segregated from prior relations. The Enlightenment understanding of nature and its “properties” structures material legacies that are a product of ... practical purification and the policing of categories ... Geologic grammars of extraction stabilize the material object for the extraction of value and the creation of the commodity form.*

KATHRYN YUSOFF, MINE AS PARADIGM

ITABIRITE















## DIÁRIO OFICIAL DA UNIÃO

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Órgão: Ministério de Minas e Energia/Agência Nacional de Mineração

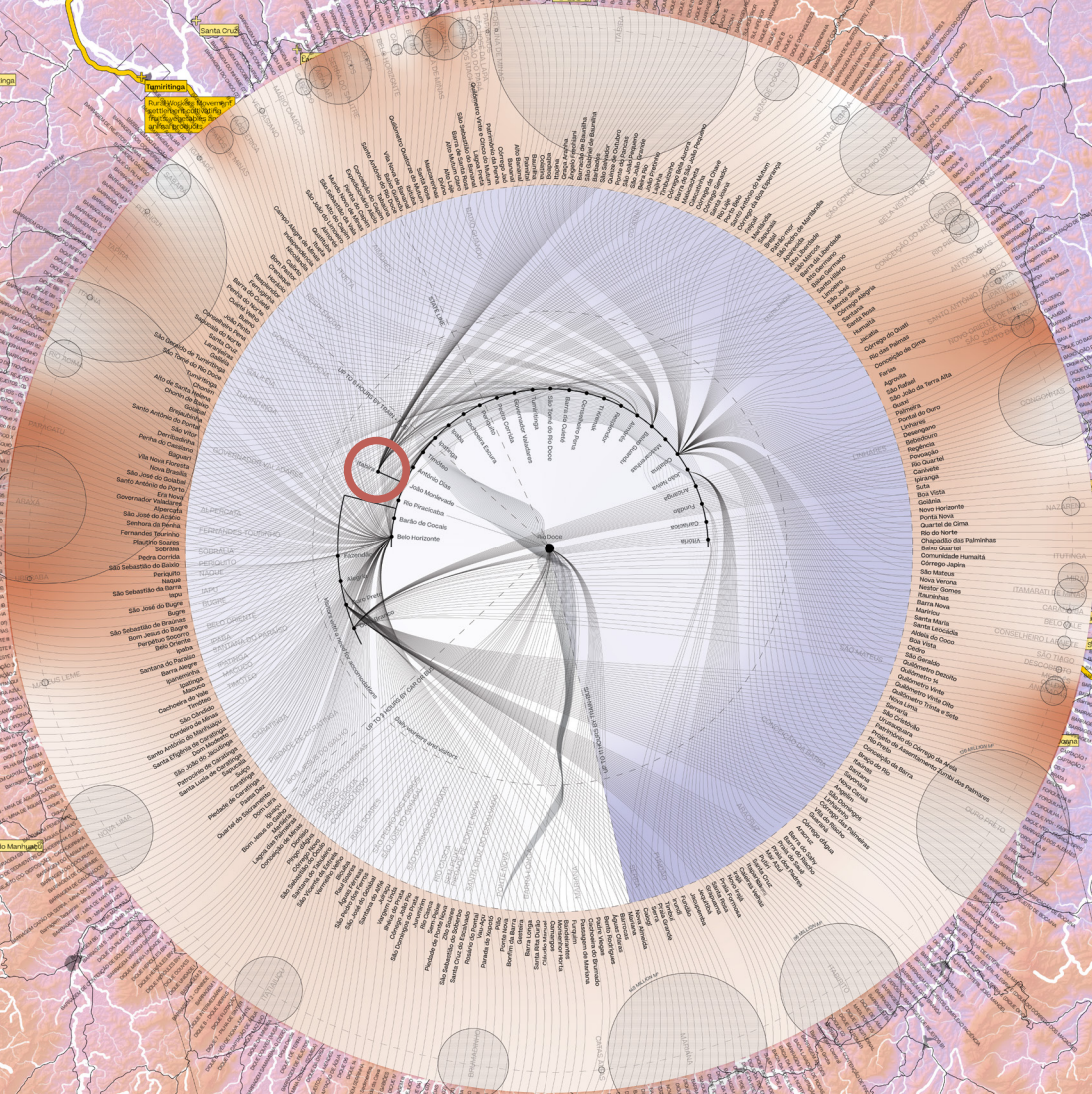
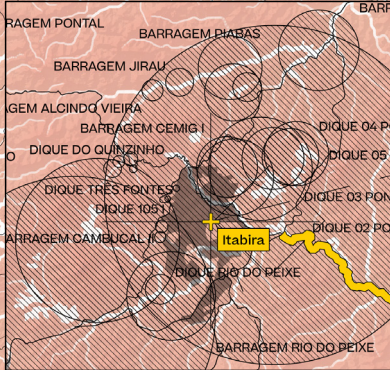
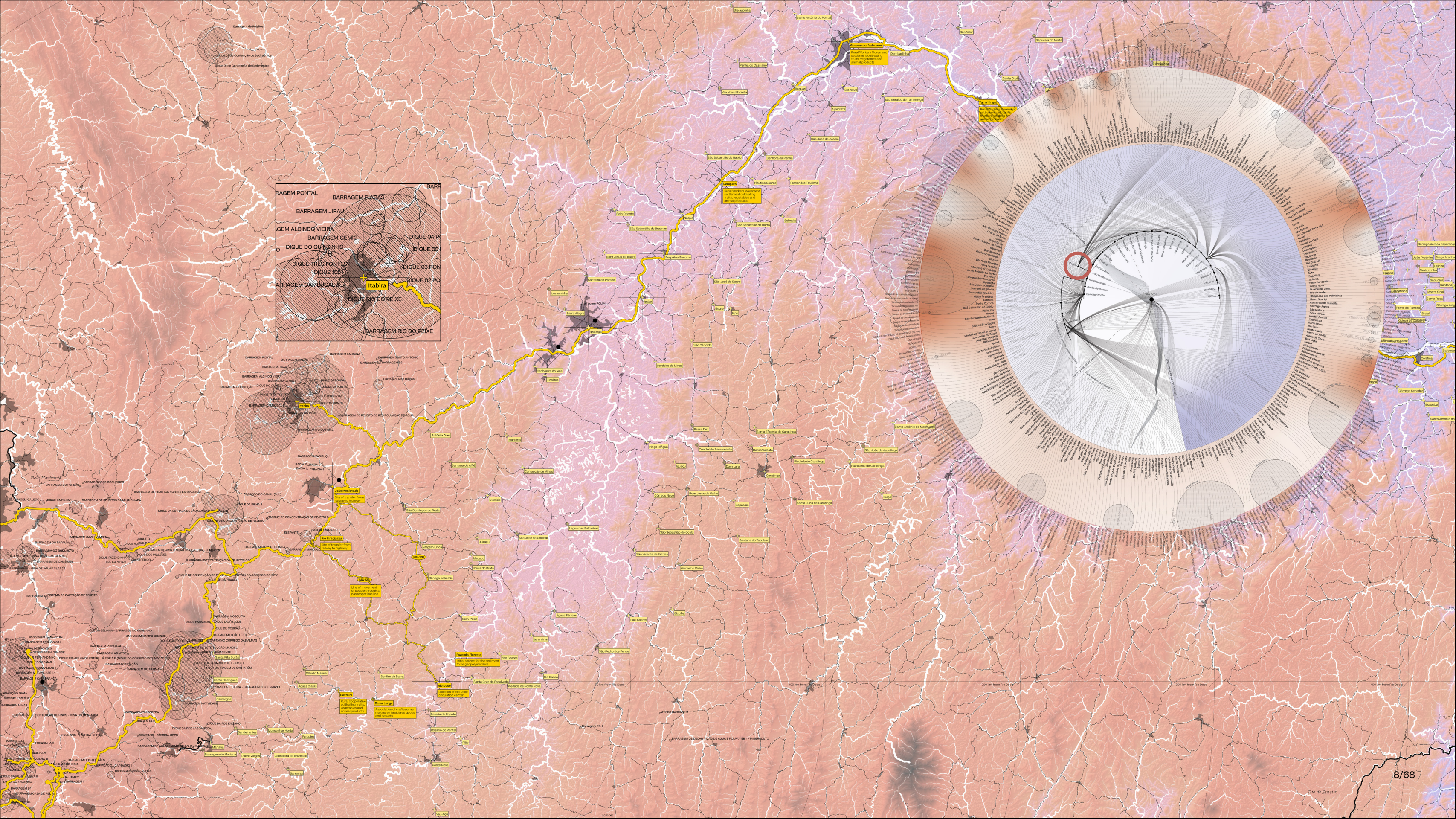
### RESOLUÇÃO Nº 13, DE 8 DE AGOSTO DE 2019

Estabelece medidas regulatórias objetivando assegurar a estabilidade de barragens de mineração, notadamente aquelas construídas ou alteadas pelo método denominado "a montante" ou por método declarado como desconhecido e dá outras providências.

A DIRETORIA COLEGIADA DA AGÊNCIA NACIONAL DE MINERAÇÃO - ANM, no uso das atribuições que lhe conferem os incisos II, XI e XXIII do art. 2º, do parágrafo único do art. 11 e art. 13 da Lei nº 13.575, de 26 de dezembro de 2017, e os arts. 2º e 9º da Estrutura Regimental da ANM, aprovada pelo Decreto nº 9.587, de 27 de novembro de 2018, e pela Resolução nº 2, de 12 de dezembro de 2018, resolve:

Art. 1º Esta Resolução estabelece medidas regulatórias para as barragens de mineração, notadamente aquelas construídas ou alteadas pelo método denominado "a montante" ou por método declarado como desconhecido e dá outras providências.

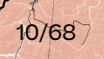




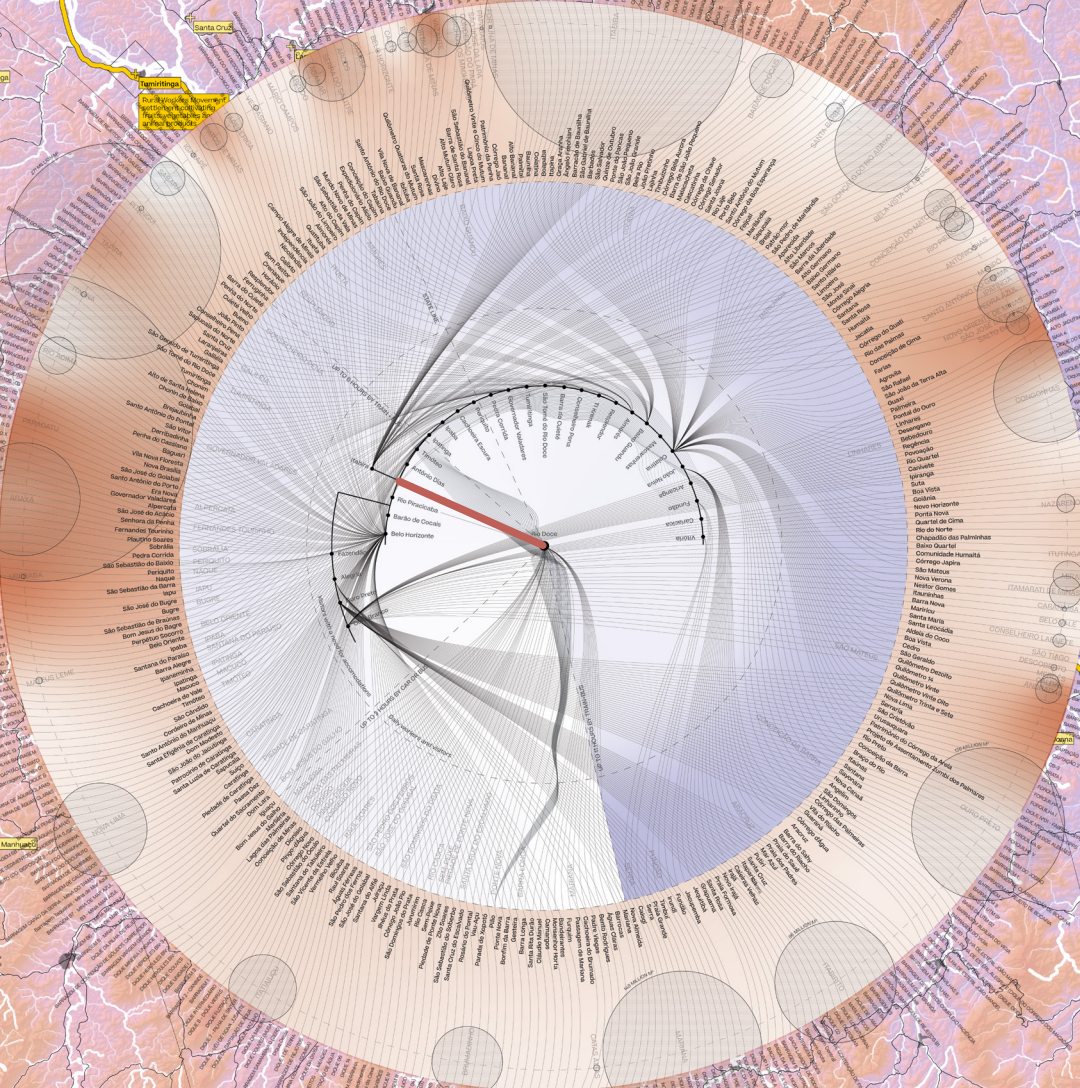
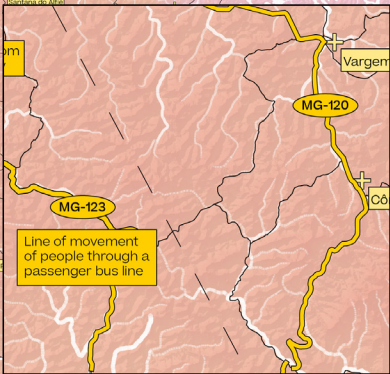
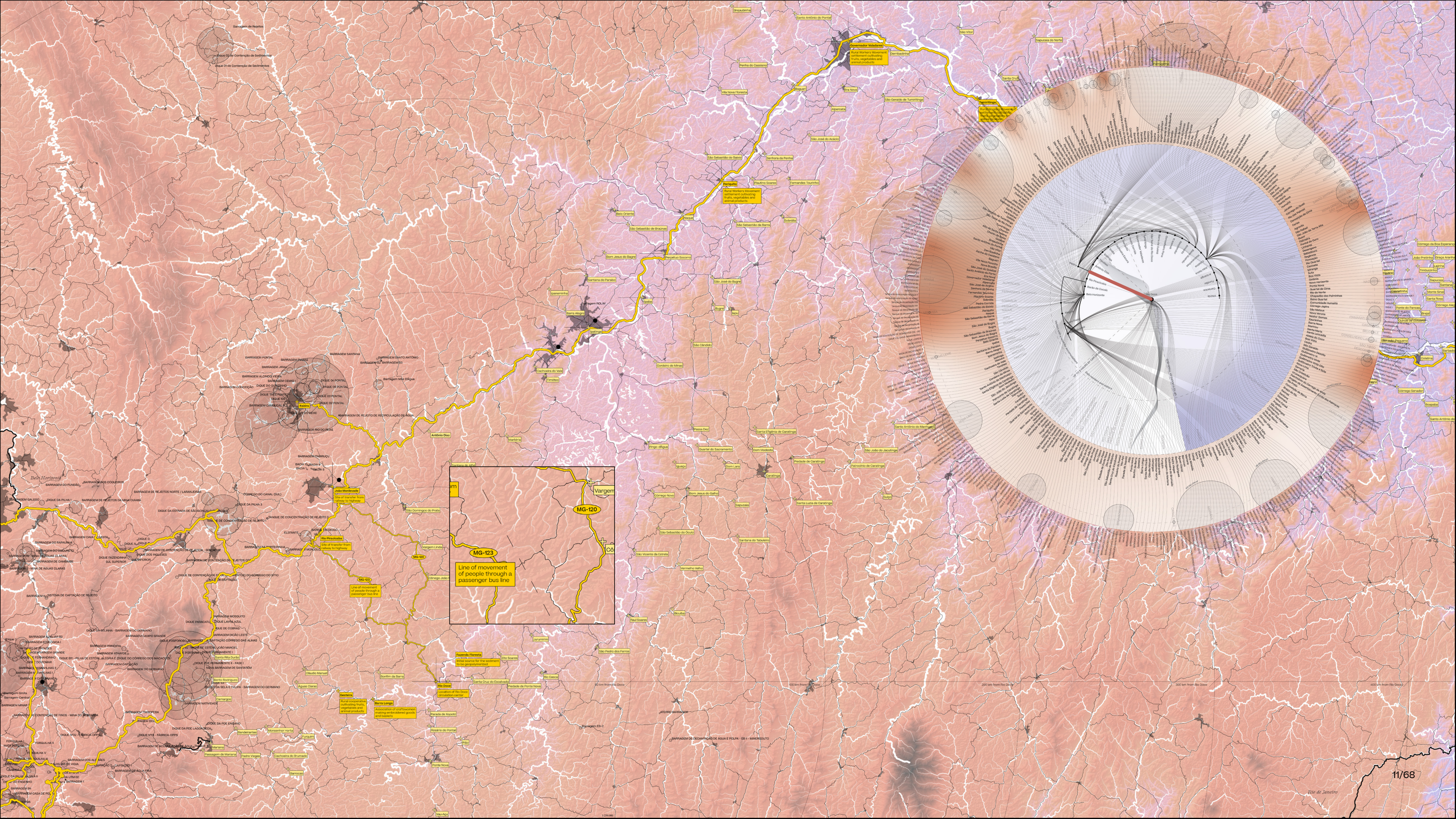




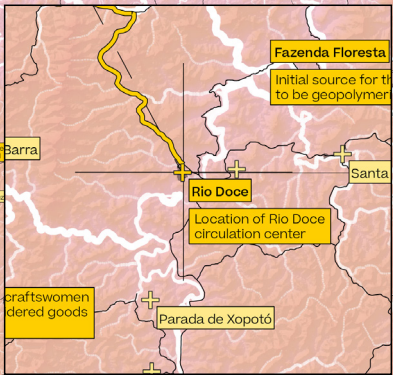
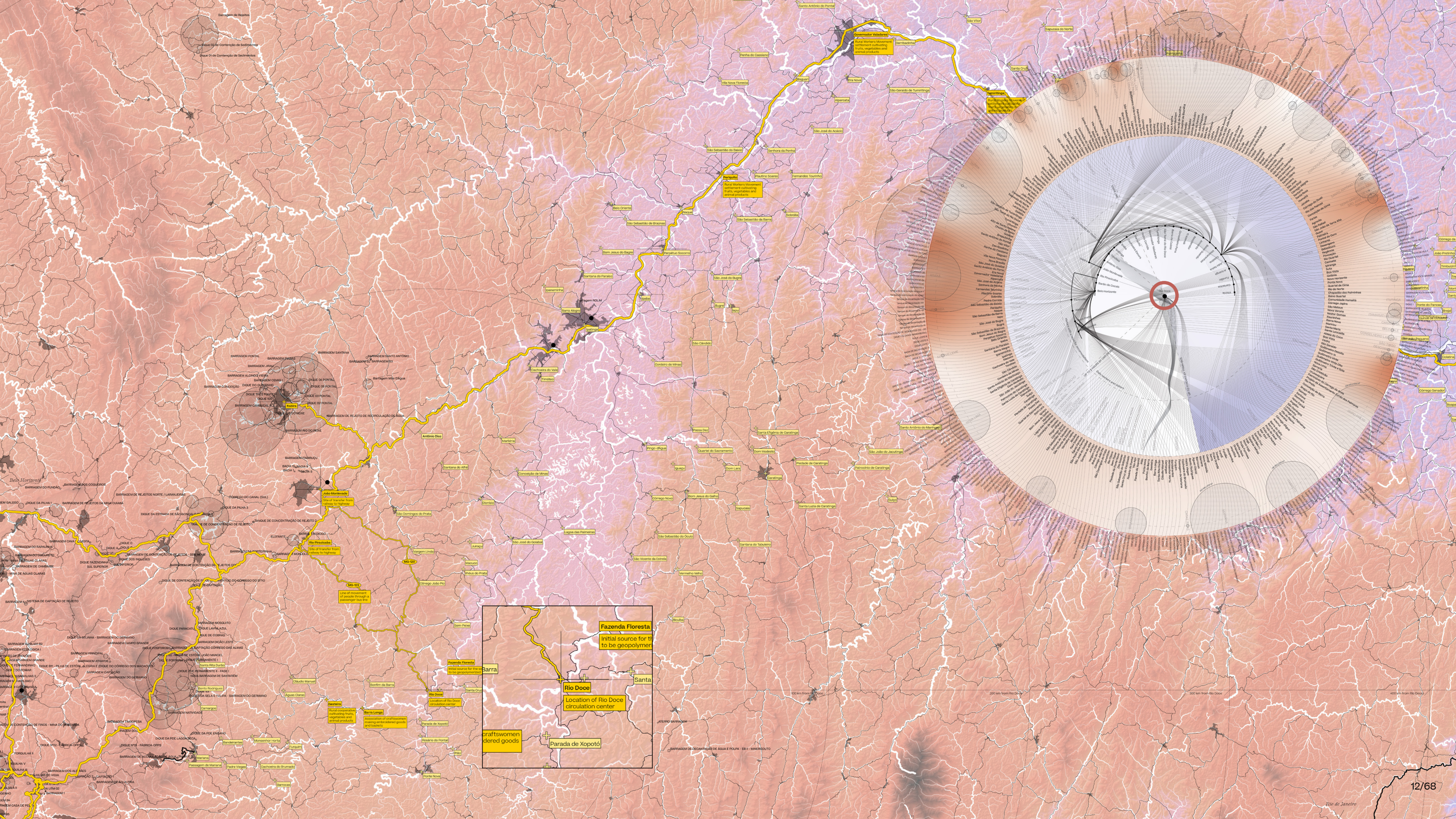
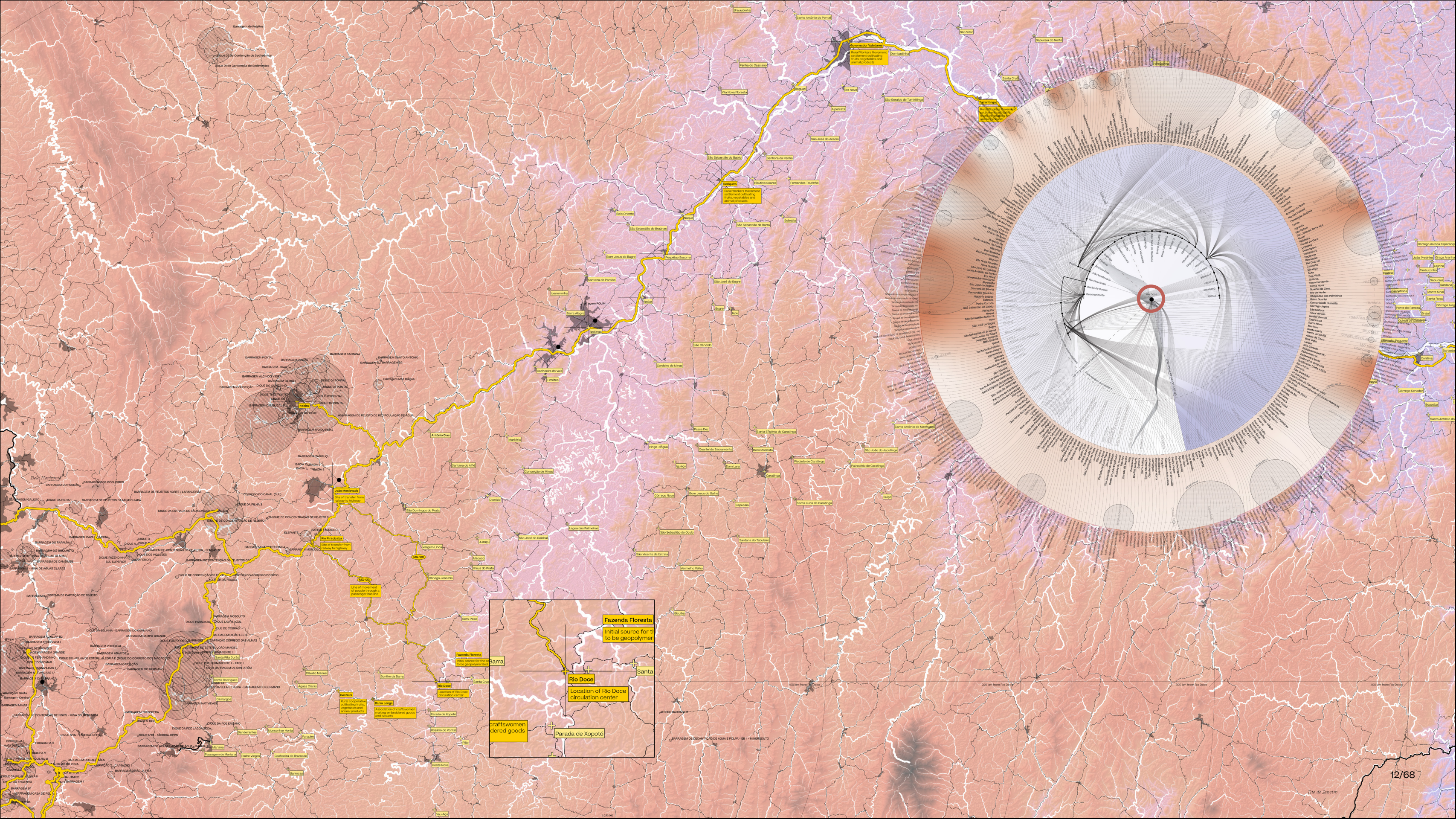








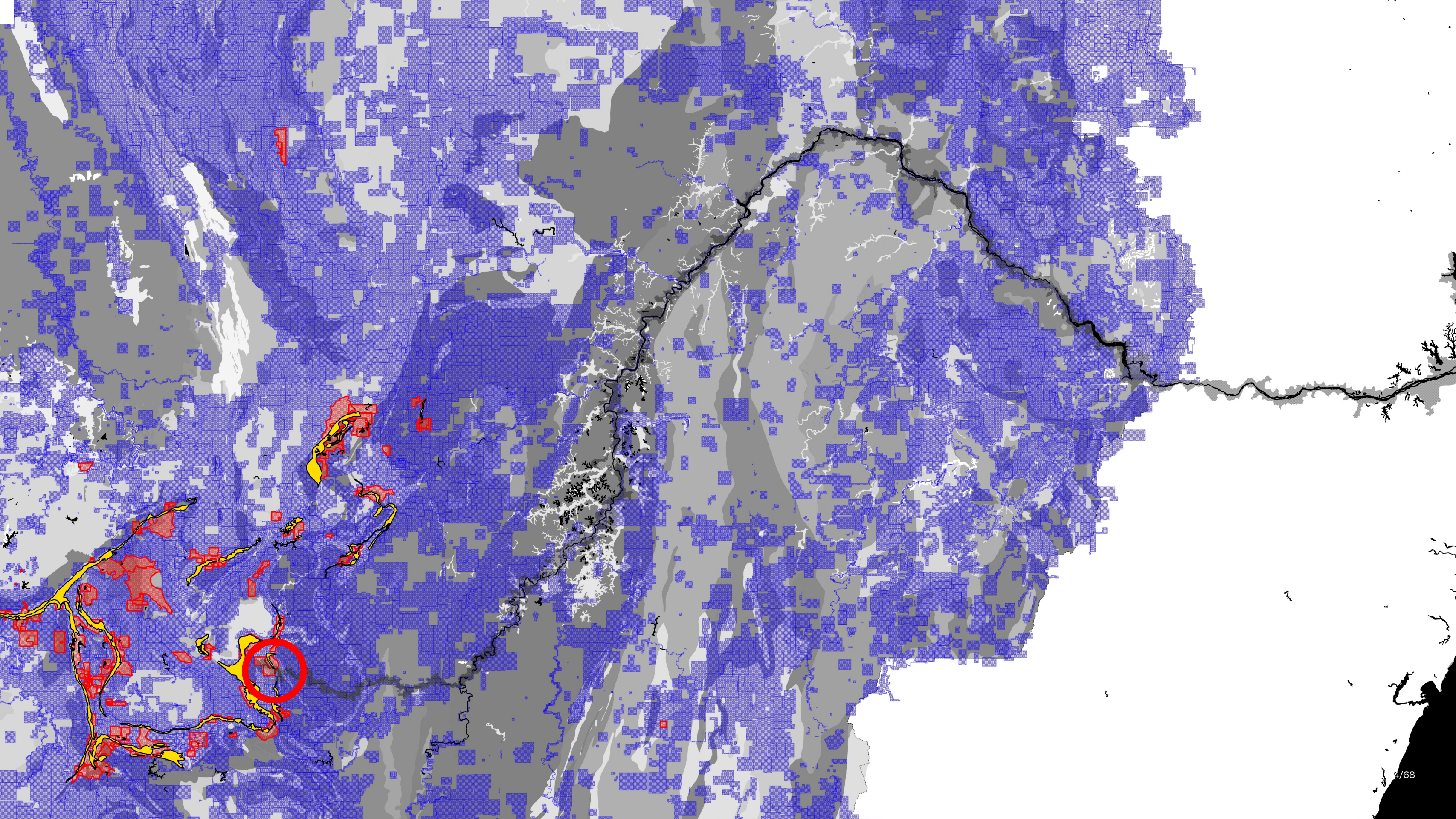








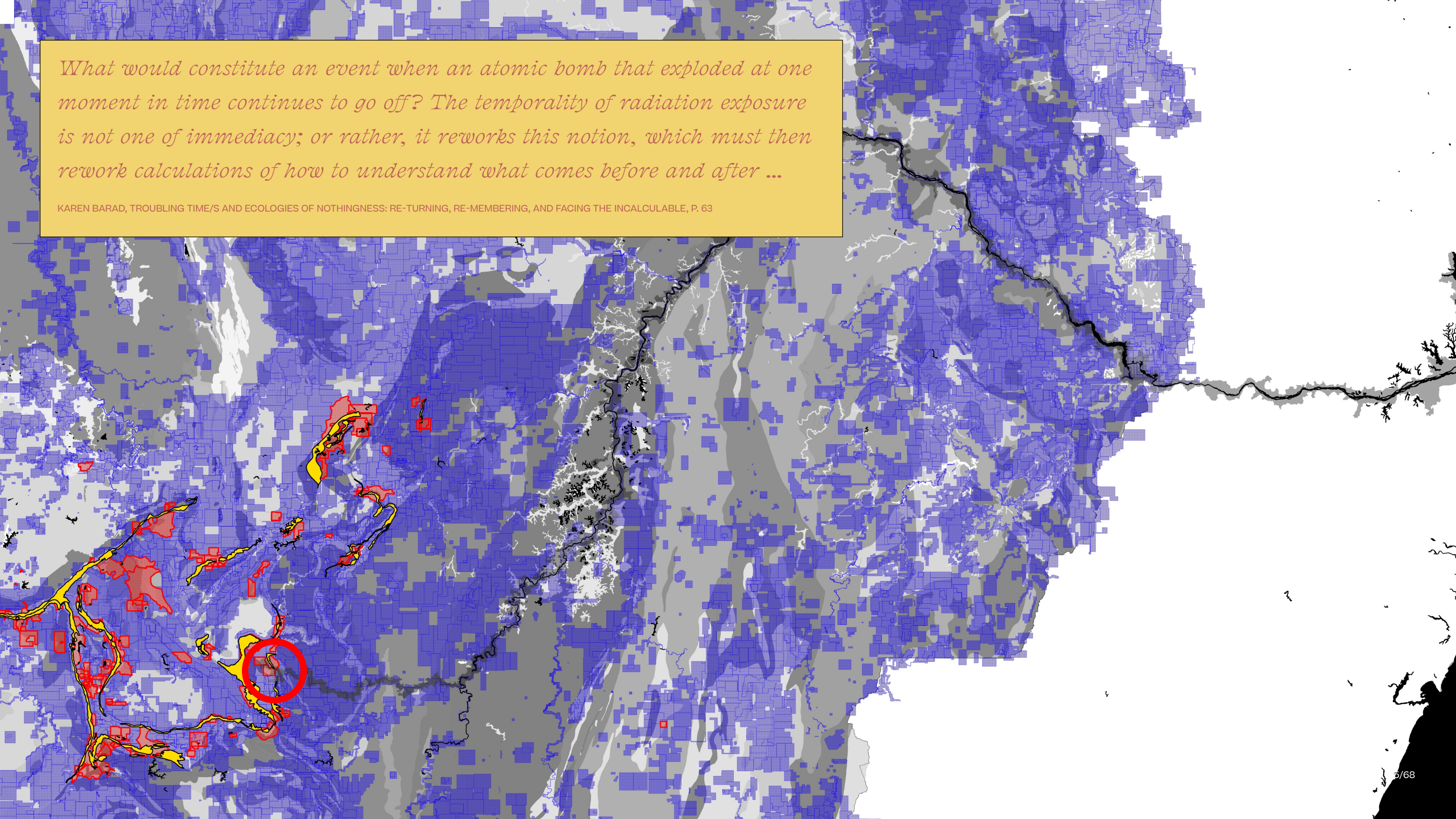




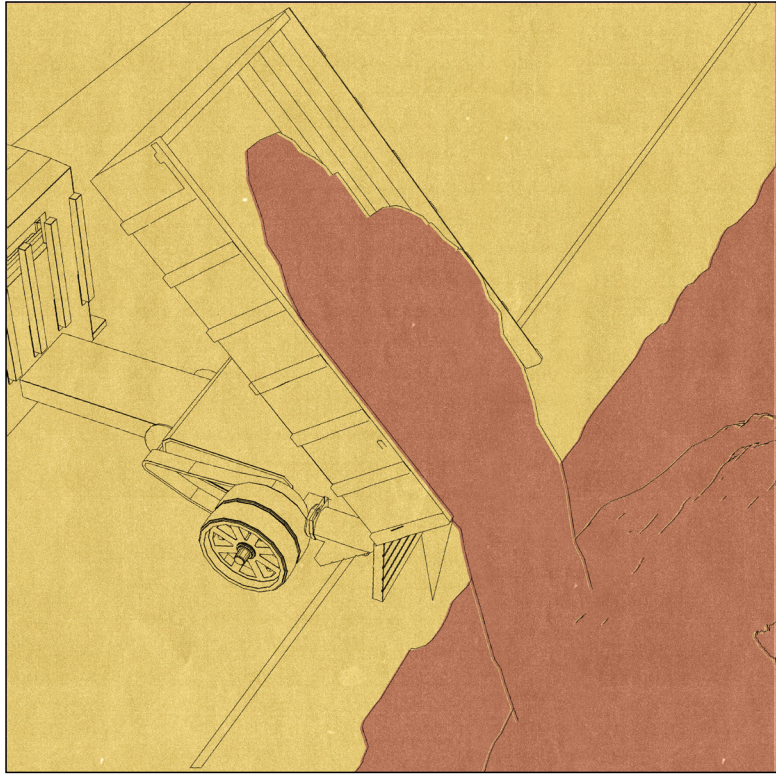


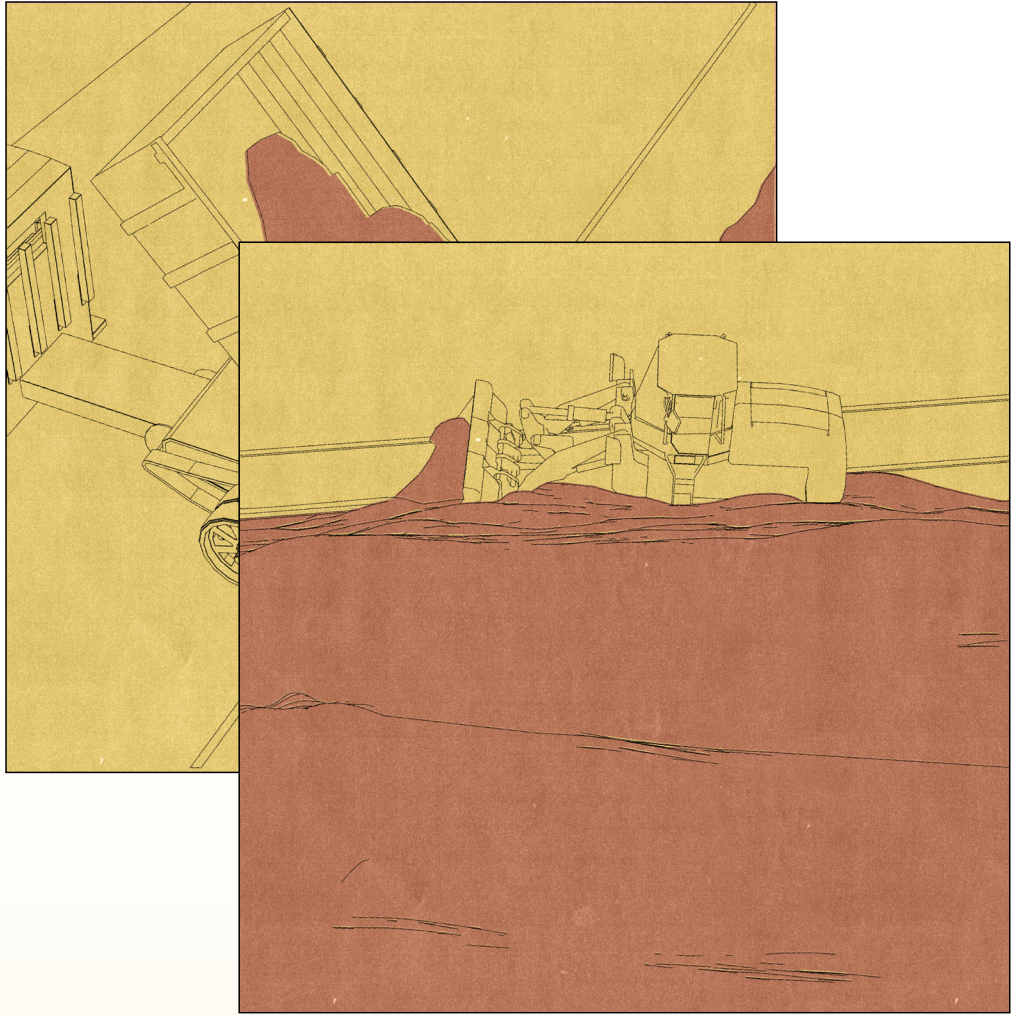
*What would constitute an event when an atomic bomb that exploded at one moment in time continues to go off? The temporality of radiation exposure is not one of immediacy; or rather, it reworks this notion, which must then rework calculations of how to understand what comes before and after ...*

KAREN BARAD, TROUBLING TIME/S AND ECOLOGIES OF NOTHINGNESS: RE-TURNING, RE-MEMBERING, AND FACING THE INCALCULABLE, P. 63

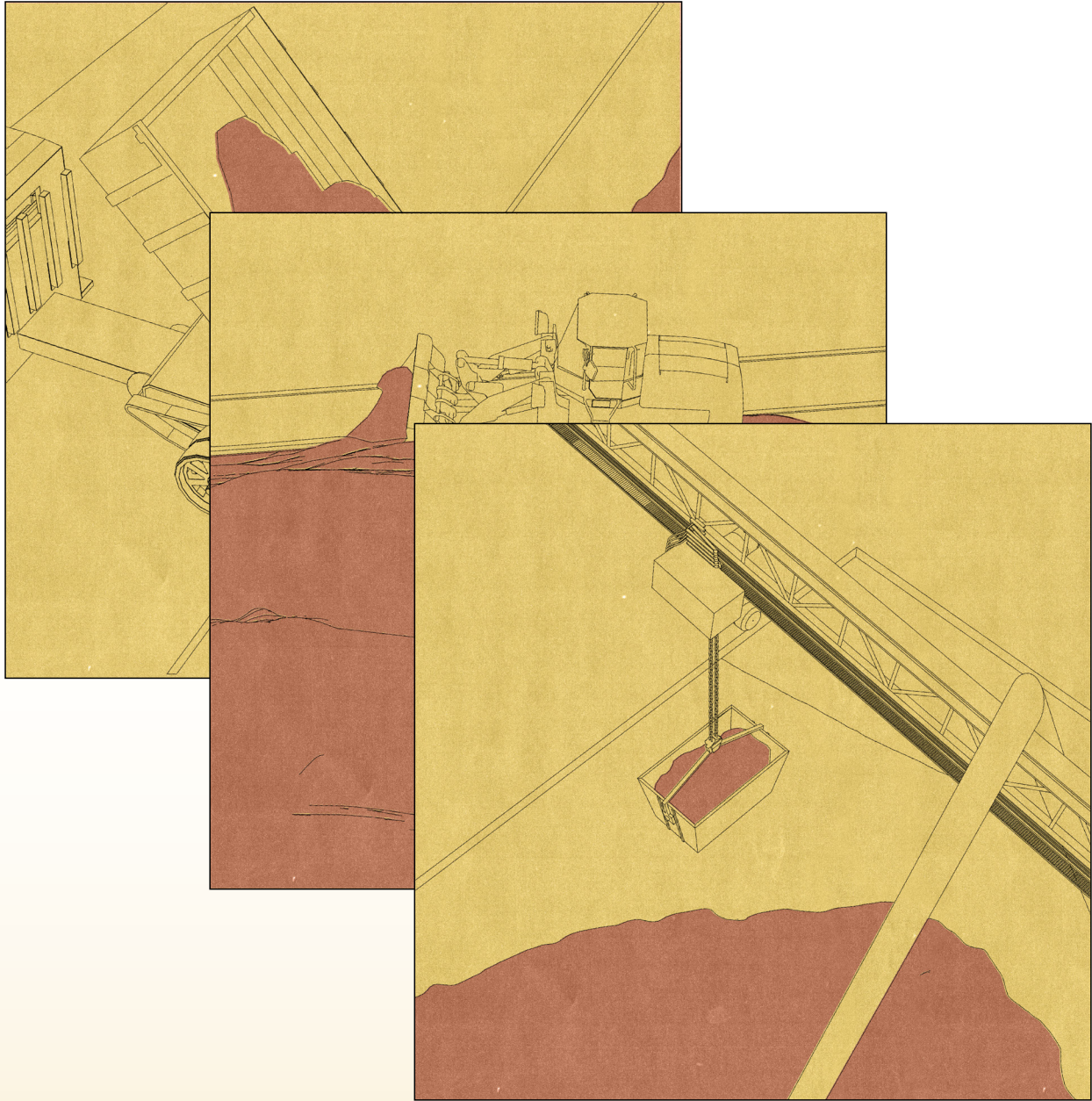




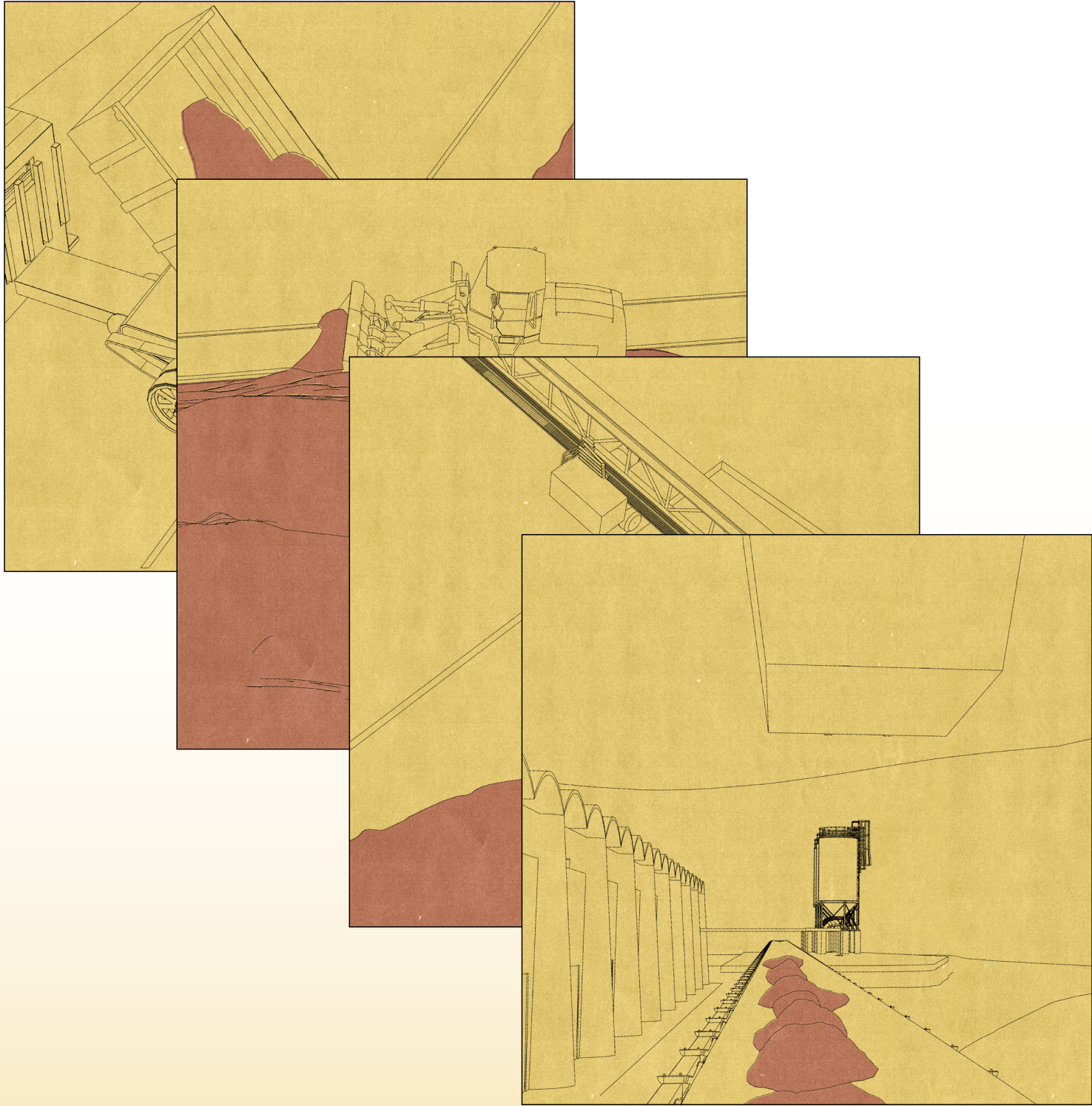




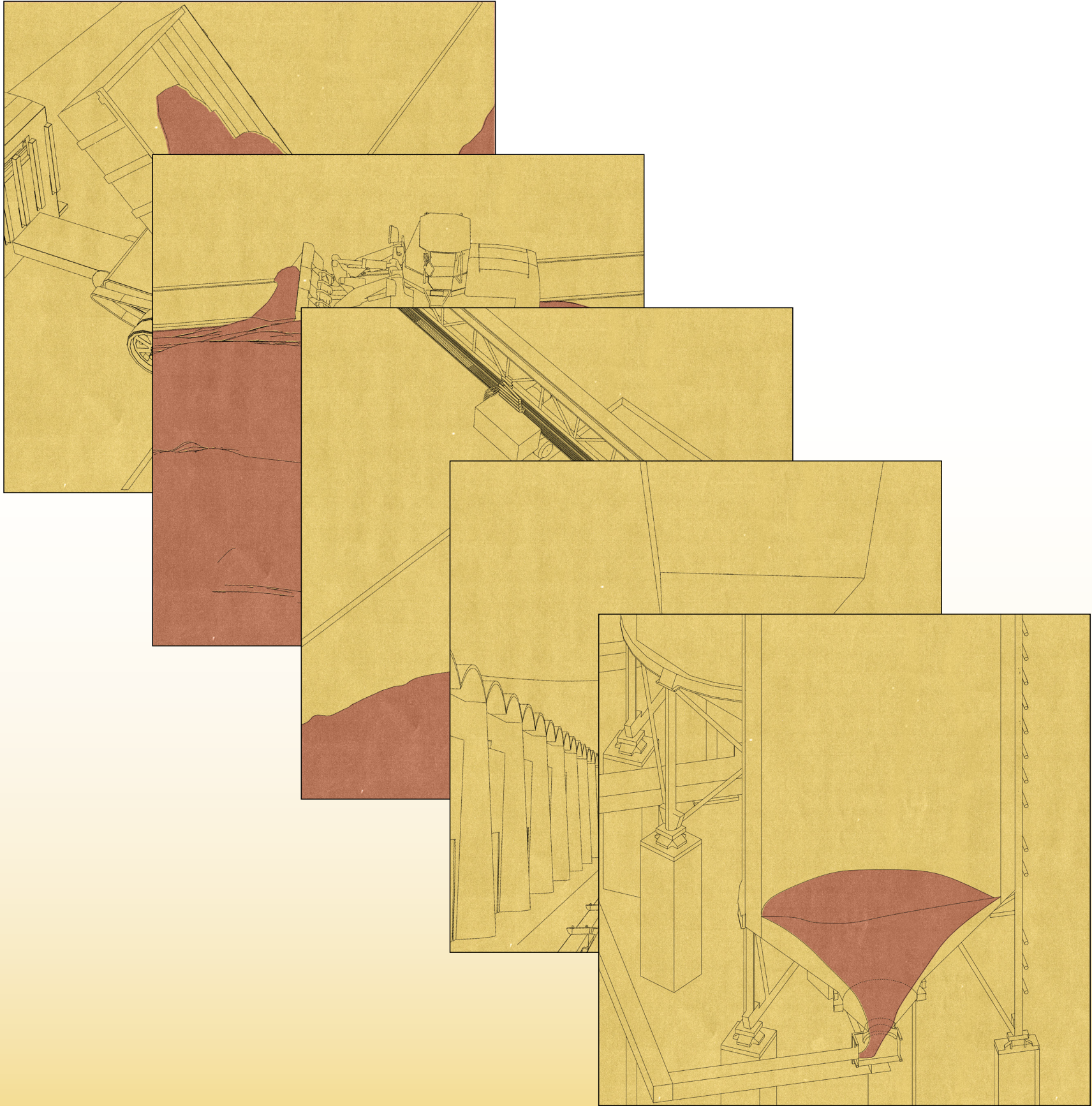




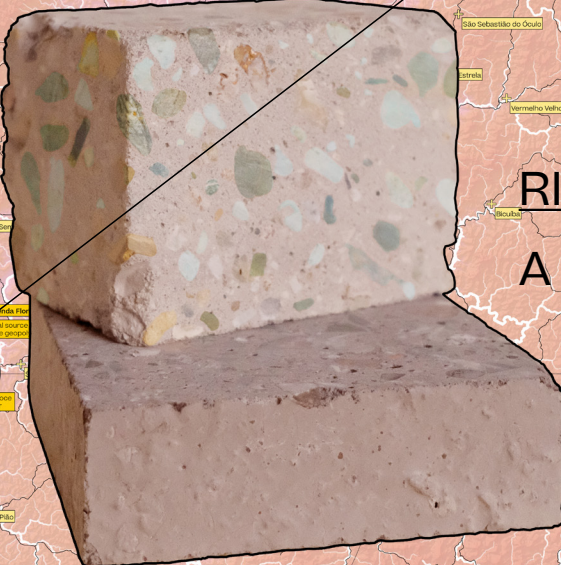
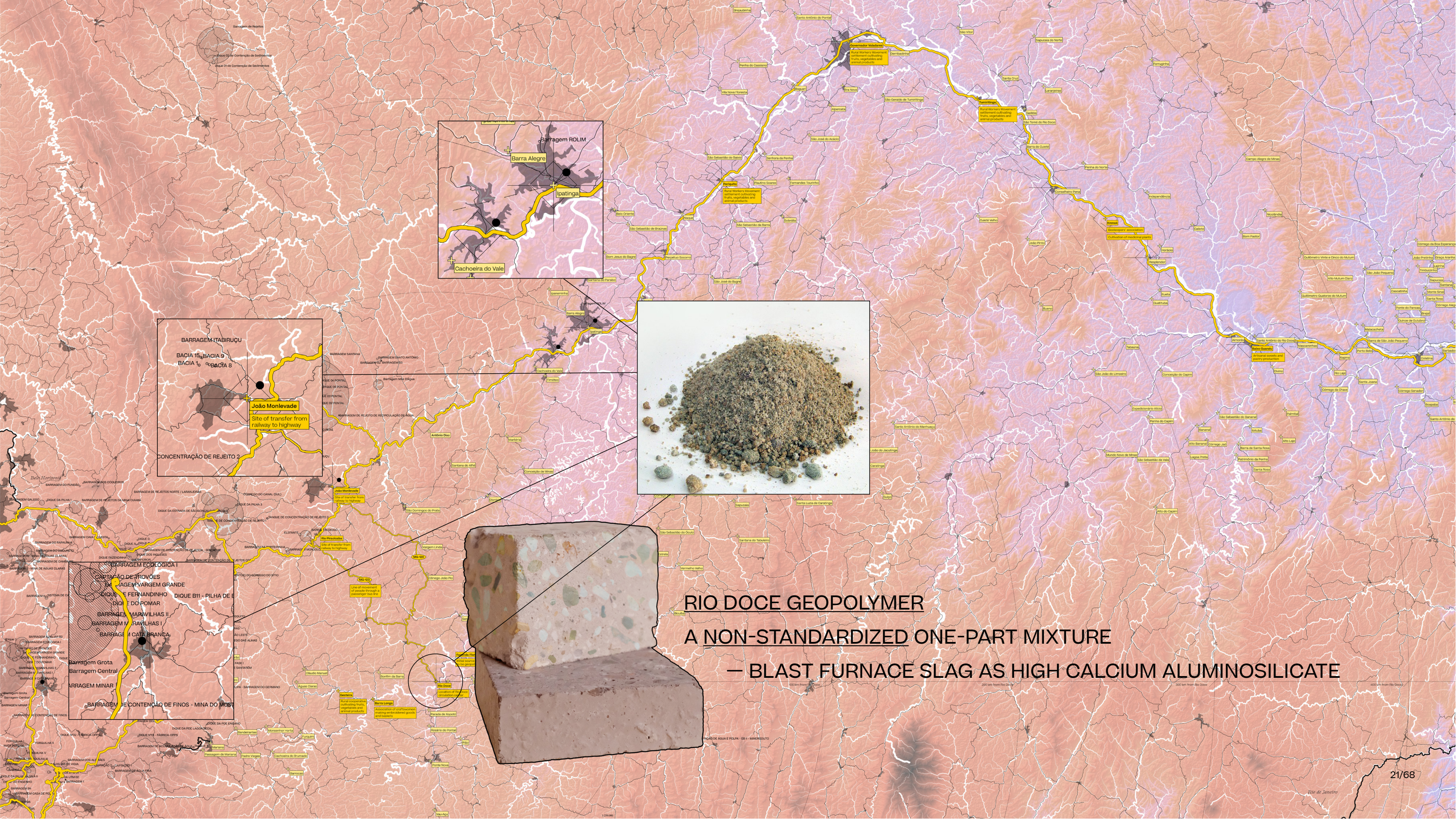






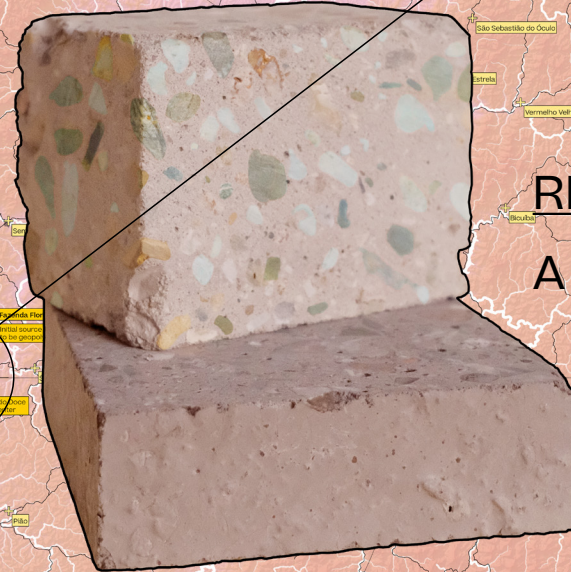
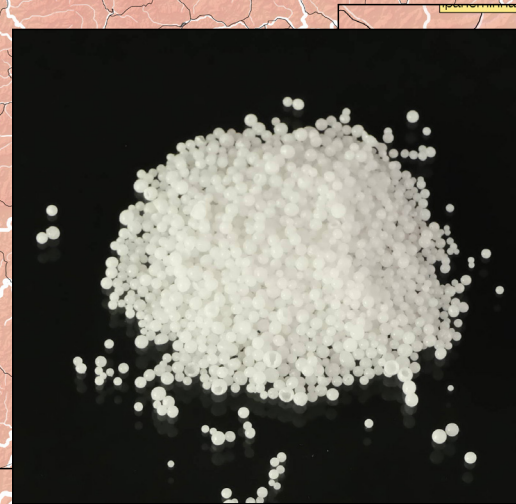






**RIO DOCE GEOPOLYMER**  
**A NON-STANDARDIZED ONE-PART MIXTURE**  
**— BLAST FURNACE SLAG AS HIGH CALCIUM ALUMINOSILICATE**



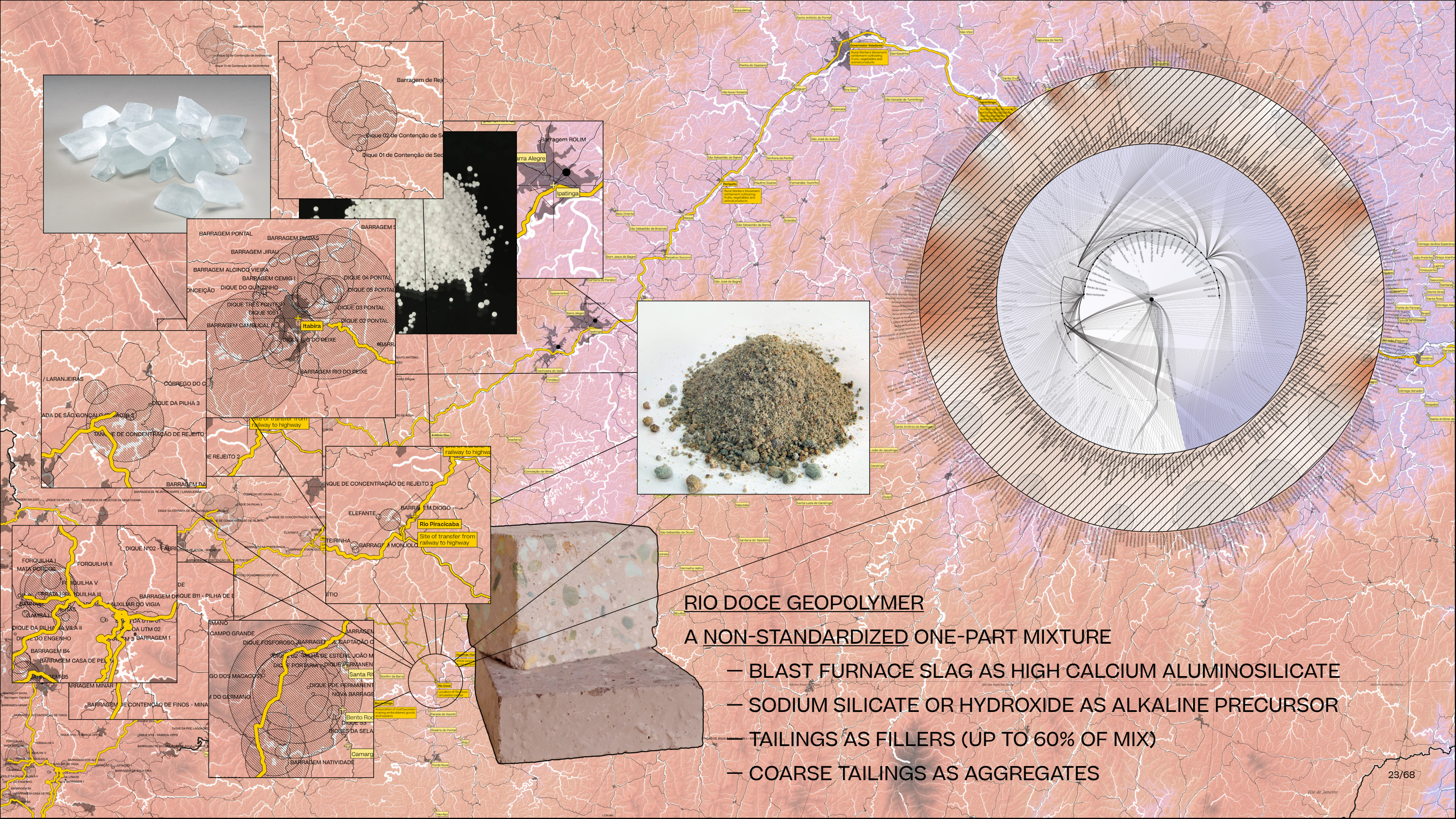
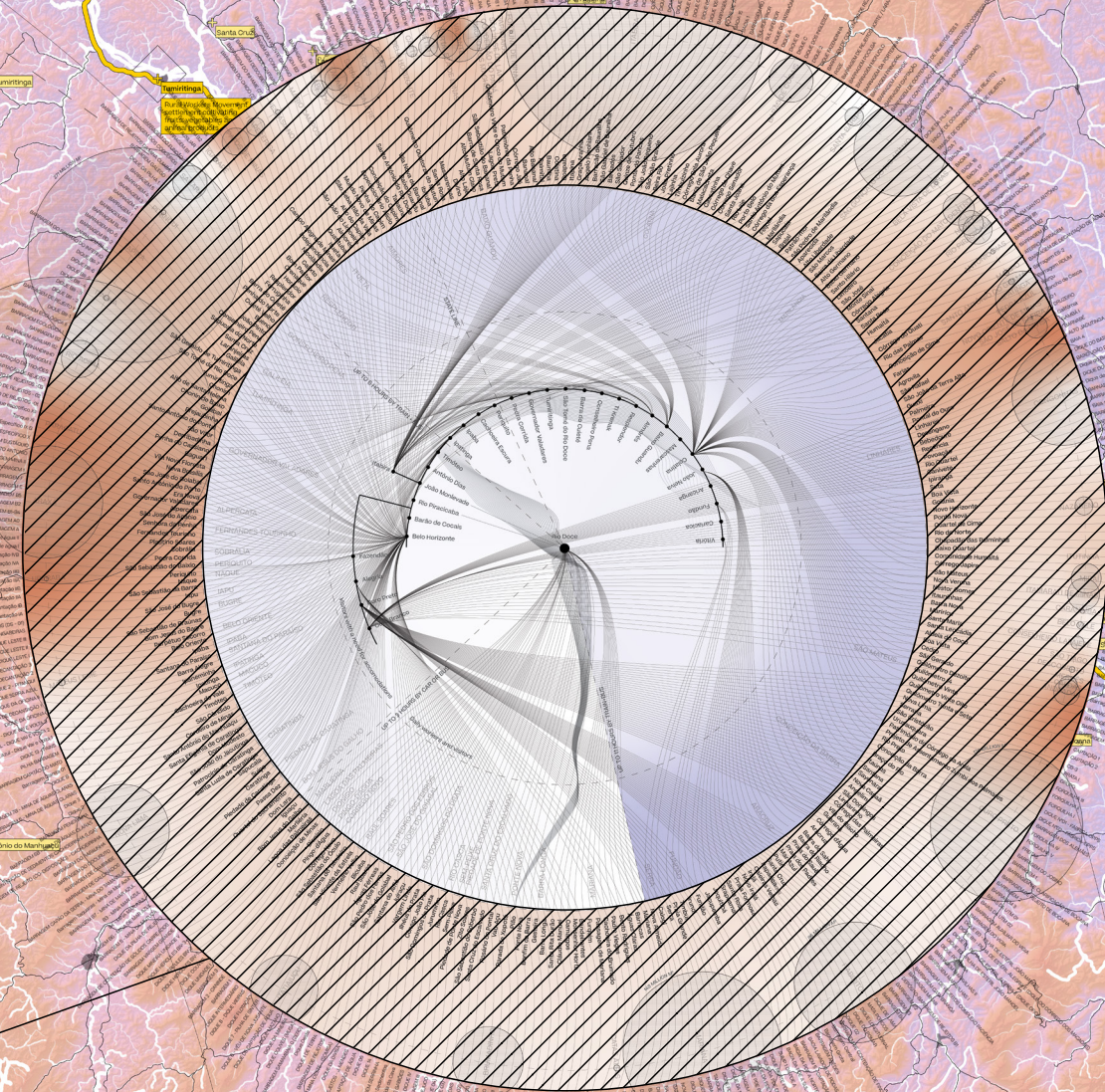
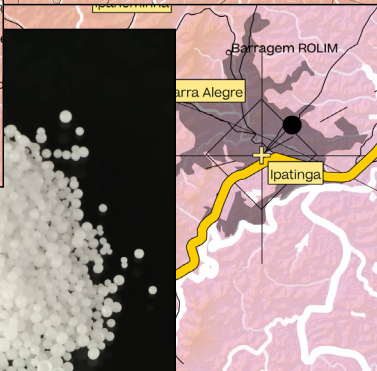
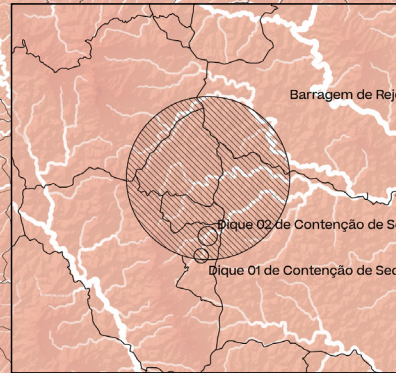


# RIO DOCE GEOPOLYMER

## A NON-STANDARDIZED ONE-PART MIXTURE

- BLAST FURNACE SLAG AS HIGH CALCIUM ALUMINOSILICATE
- SODIUM SILICATE OR HYDROXIDE AS ALKALINE PRECURSOR



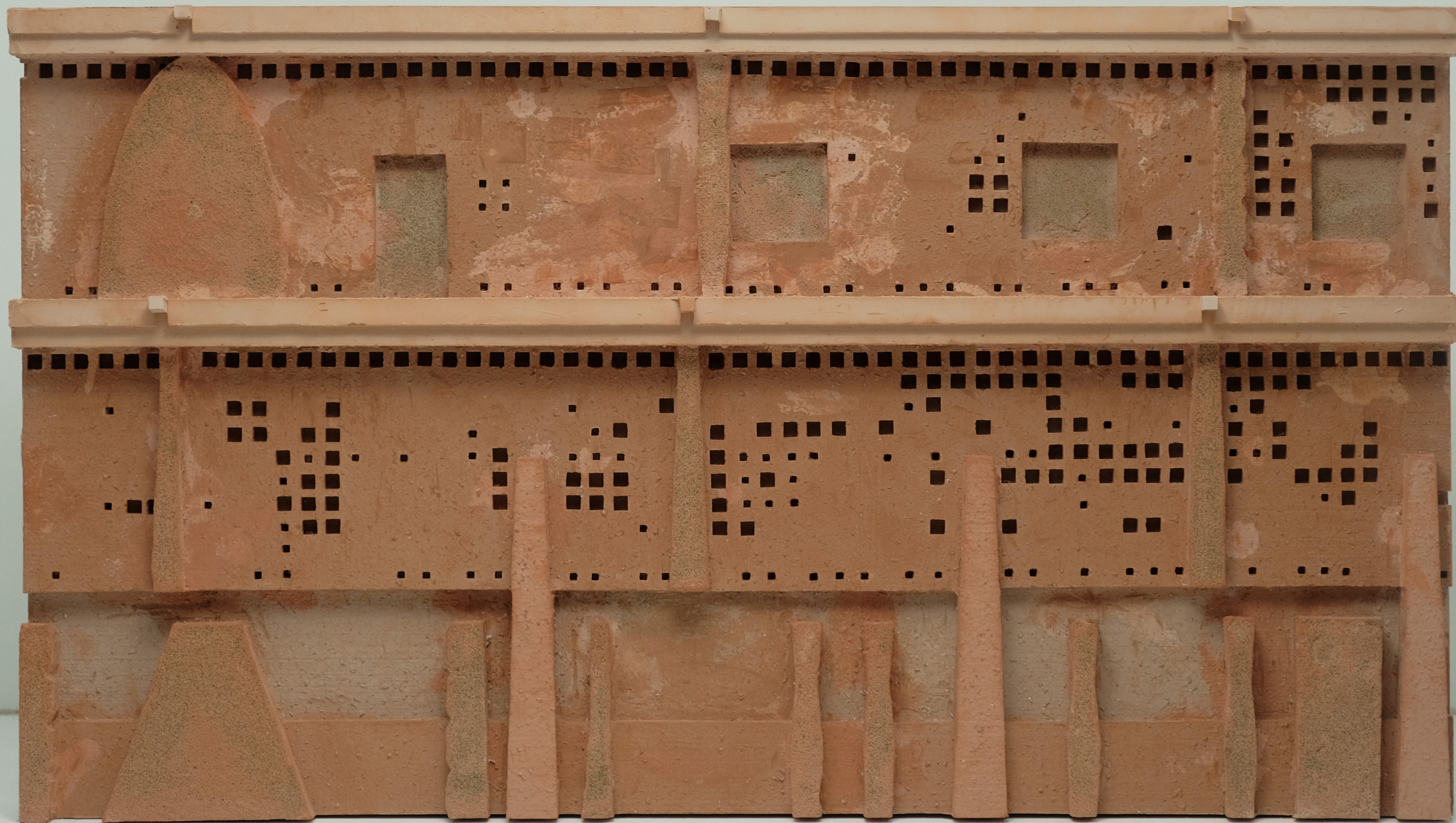


## RIO DOCE GEOPOLYMER

### A NON-STANDARDIZED ONE-PART MIXTURE

- BLAST FURNACE SLAG AS HIGH CALCIUM ALUMINOSILICATE
- SODIUM SILICATE OR HYDROXIDE AS ALKALINE PRECURSOR
- TAILINGS AS FILLERS (UP TO 60% OF MIX)
- COARSE TAILINGS AS AGGREGATES

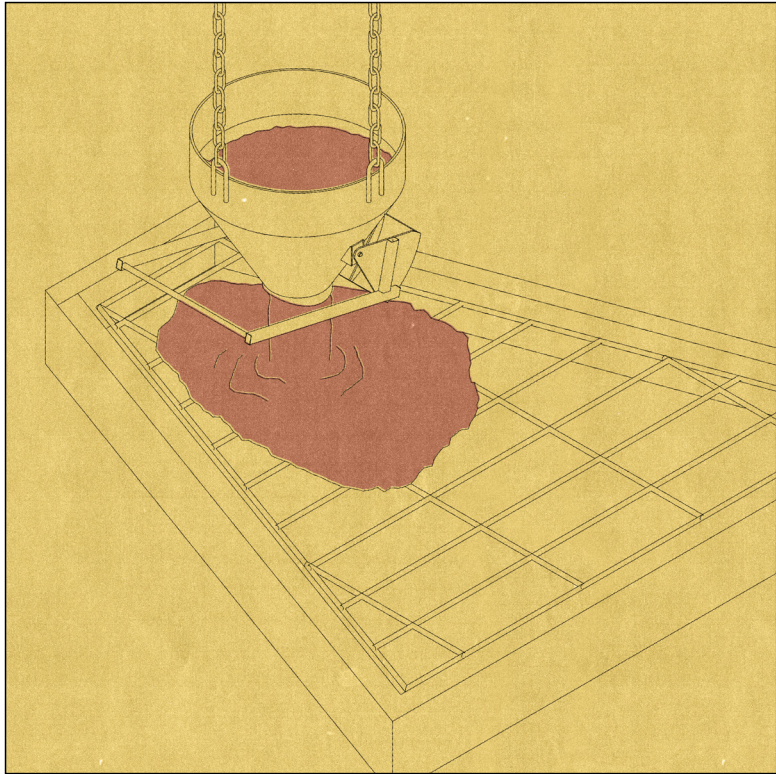
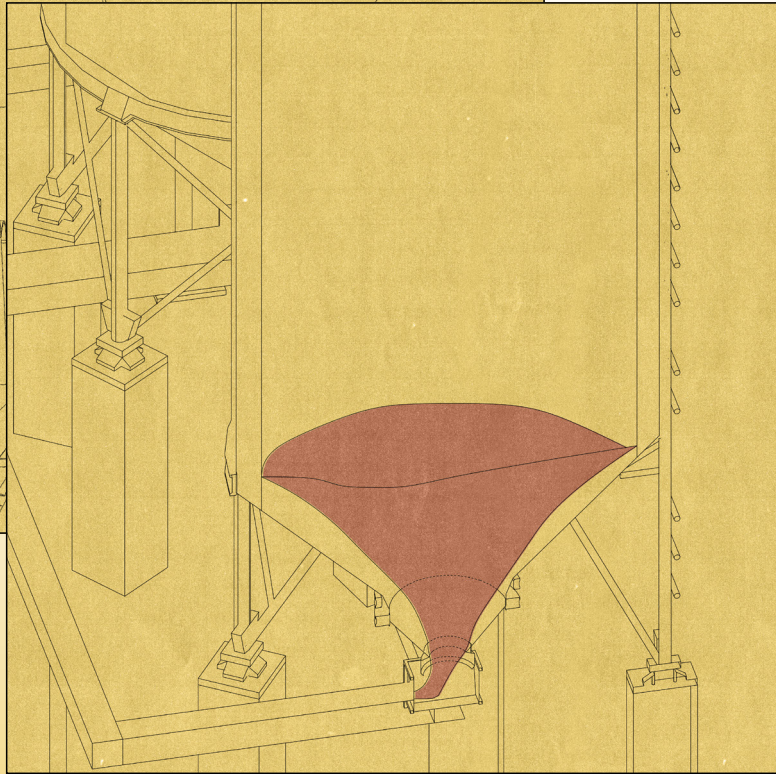
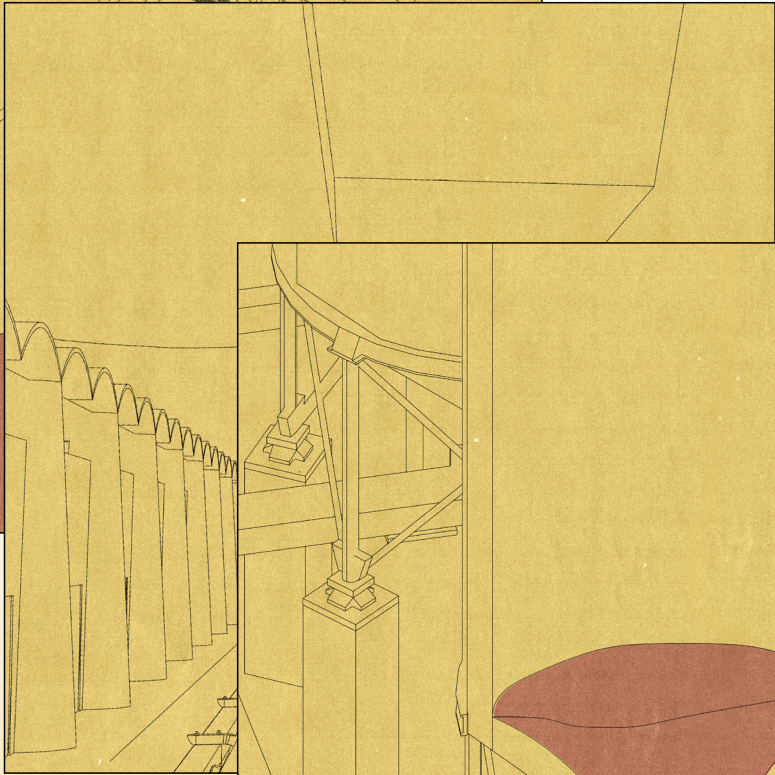
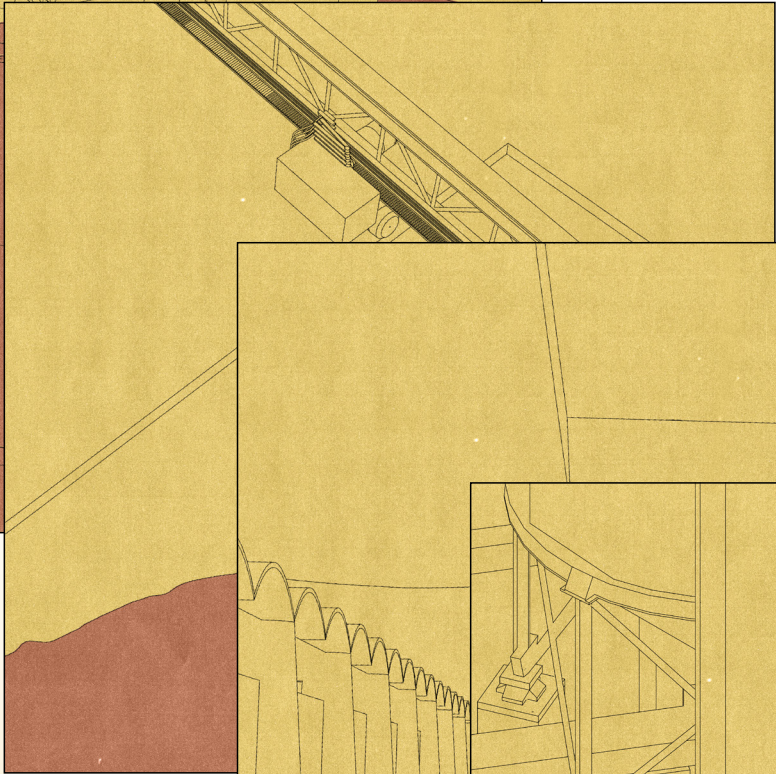
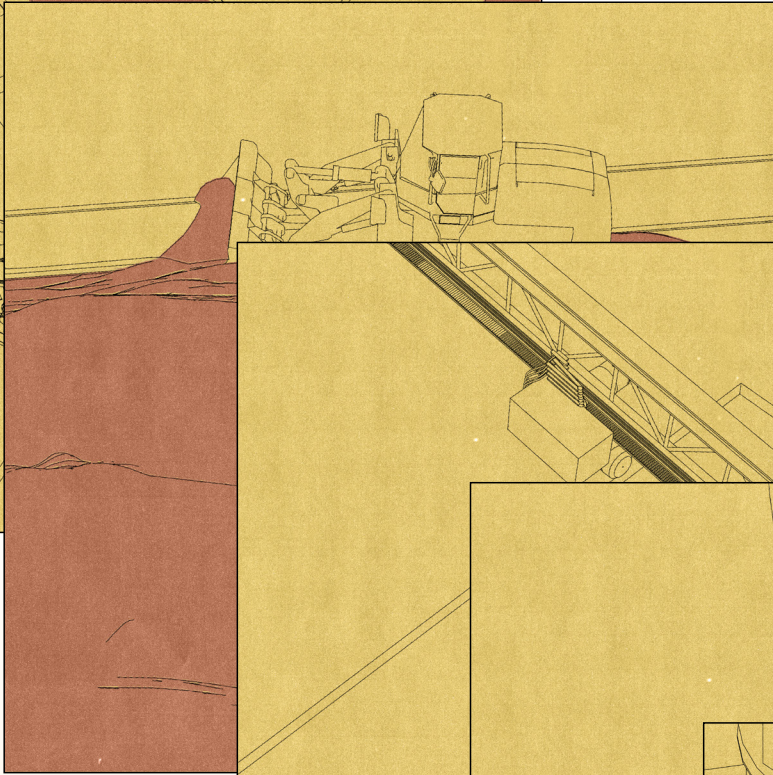
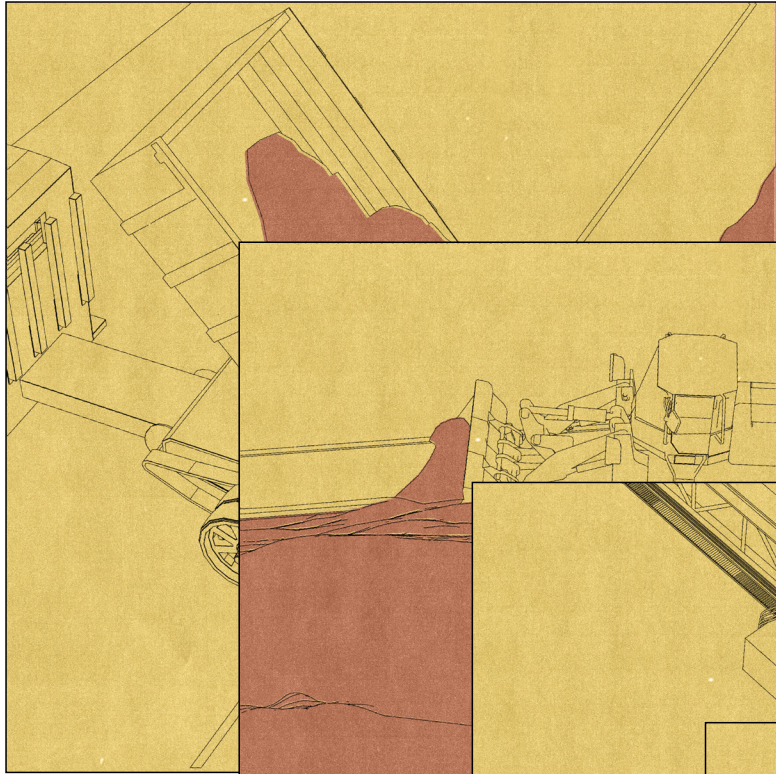




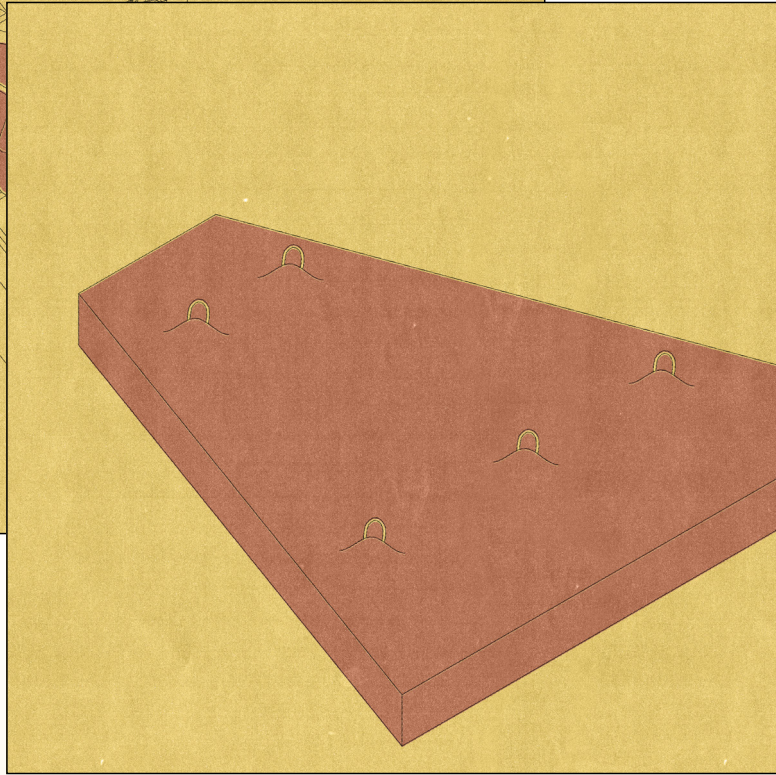
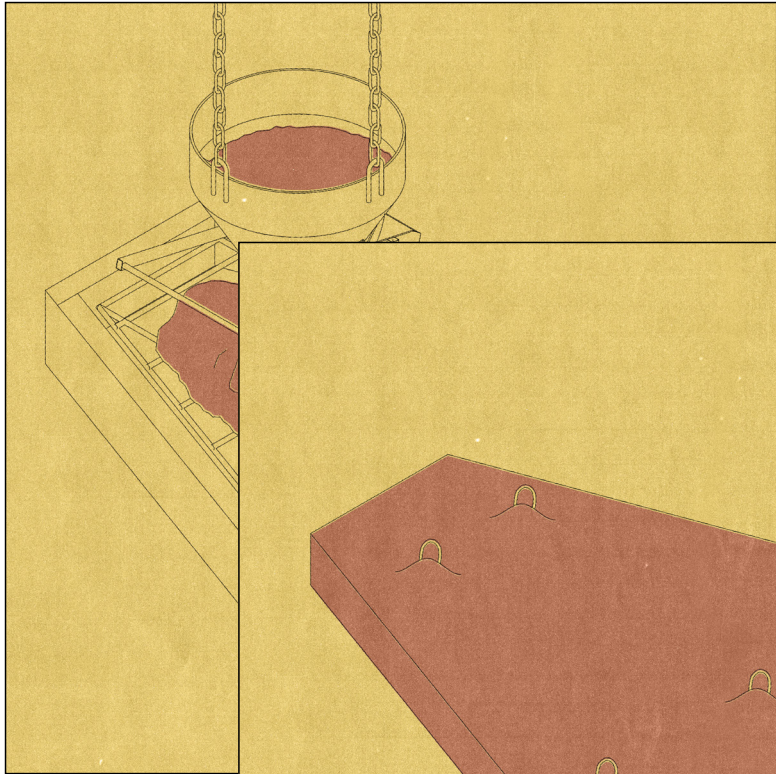
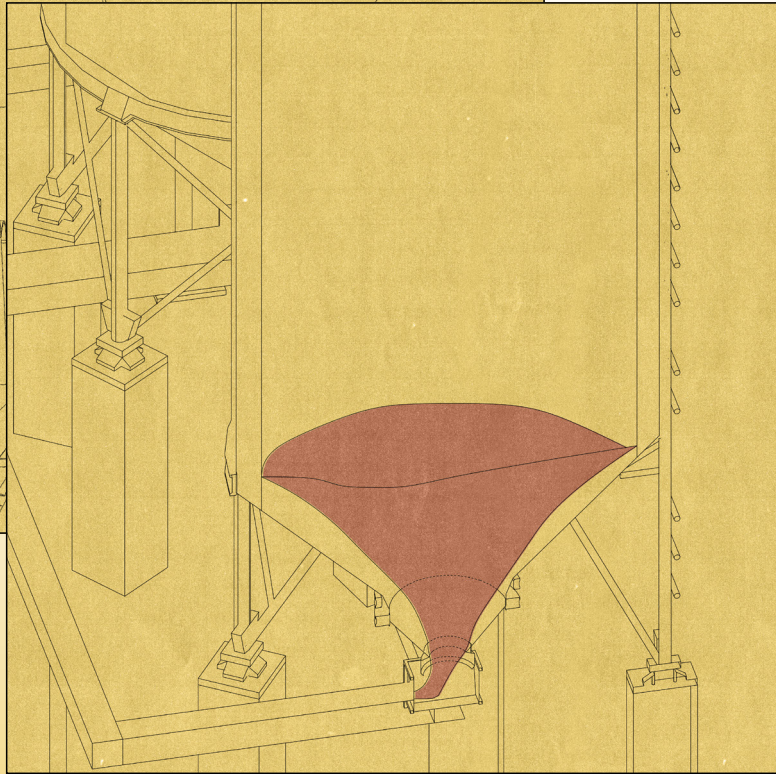
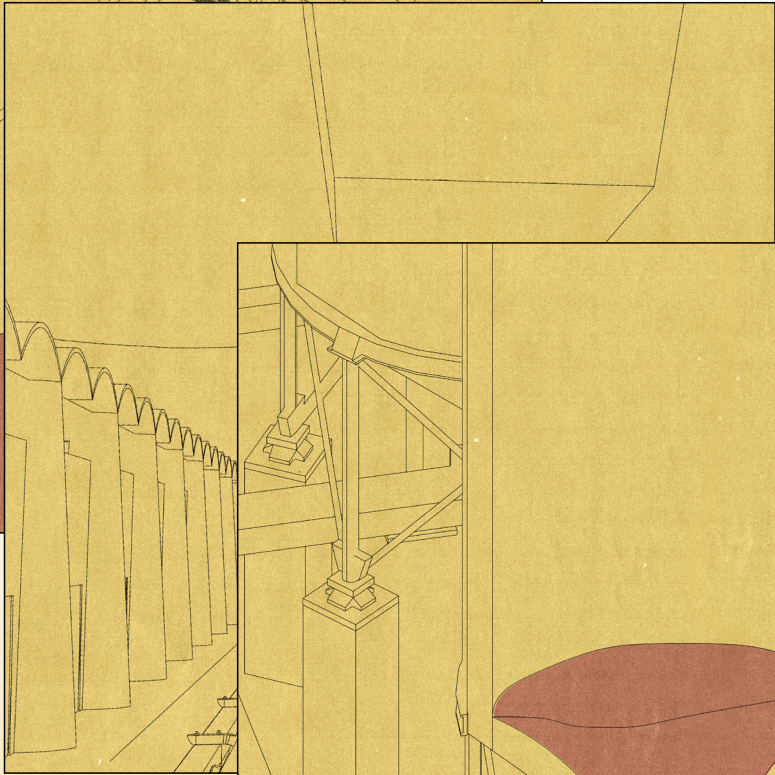
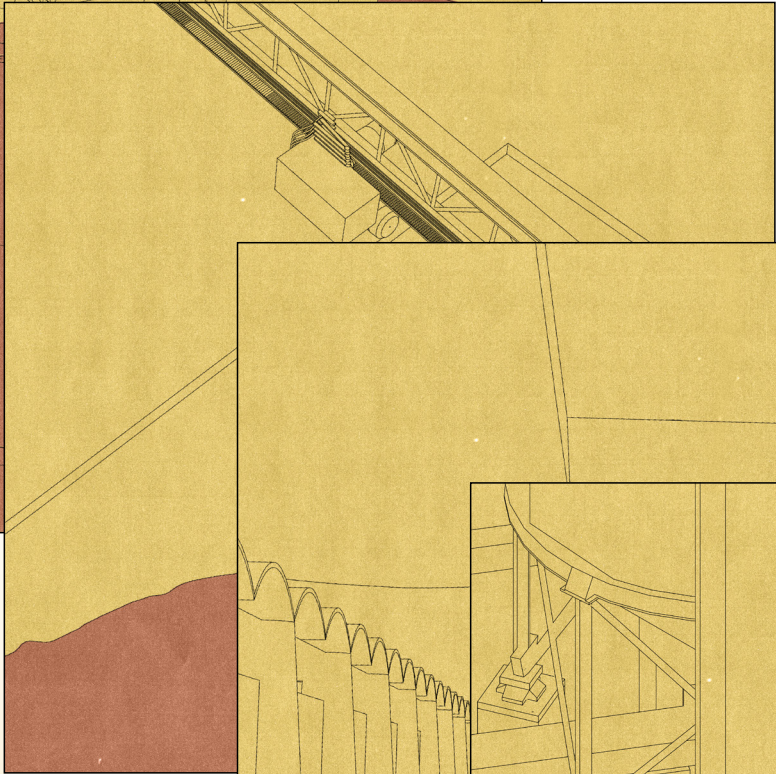
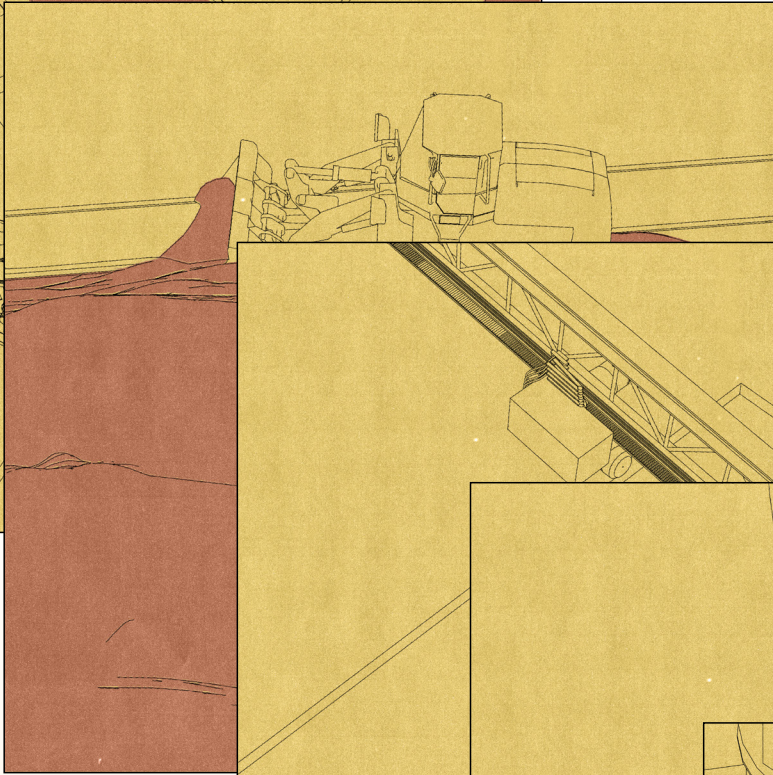
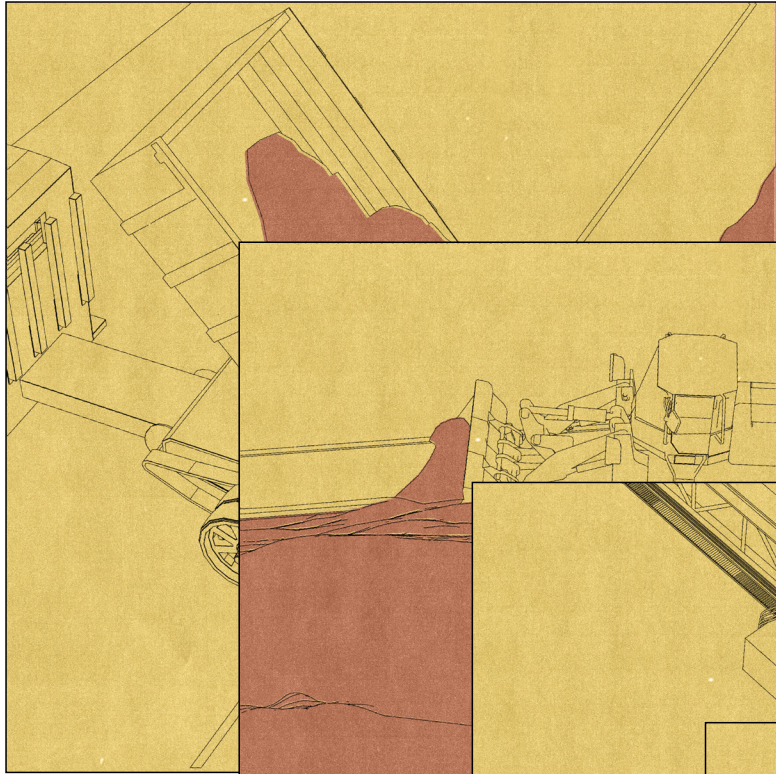




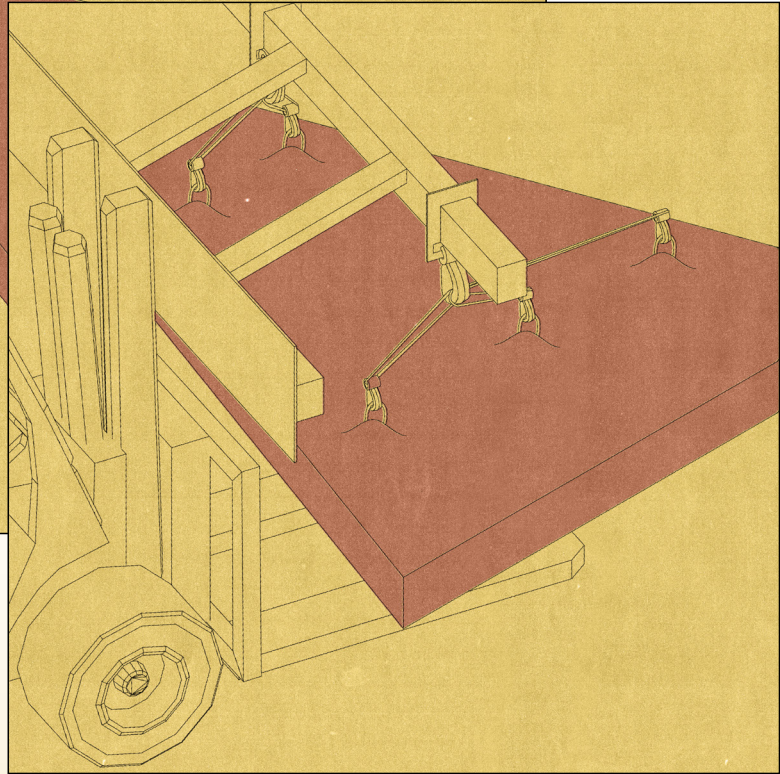
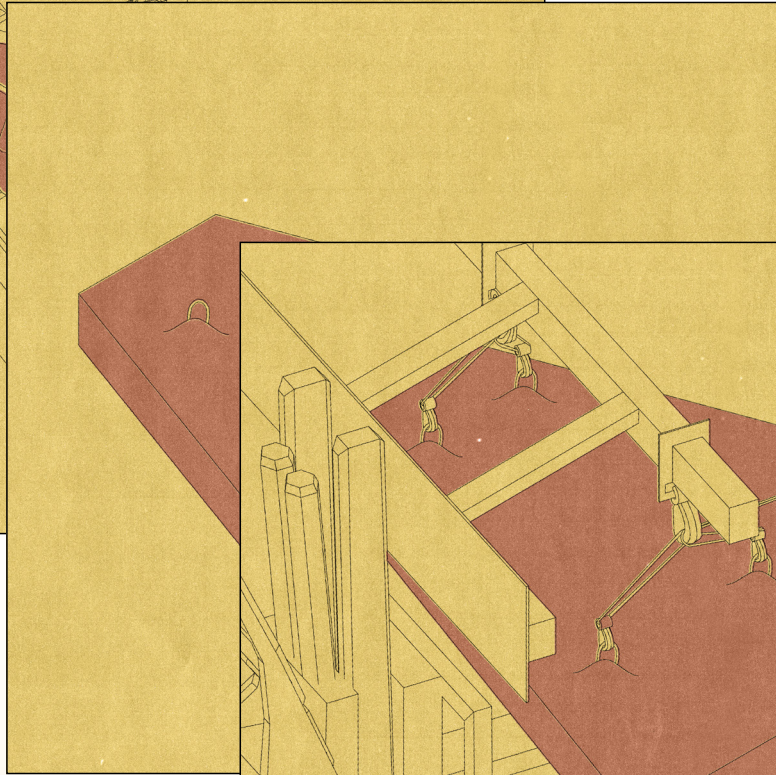
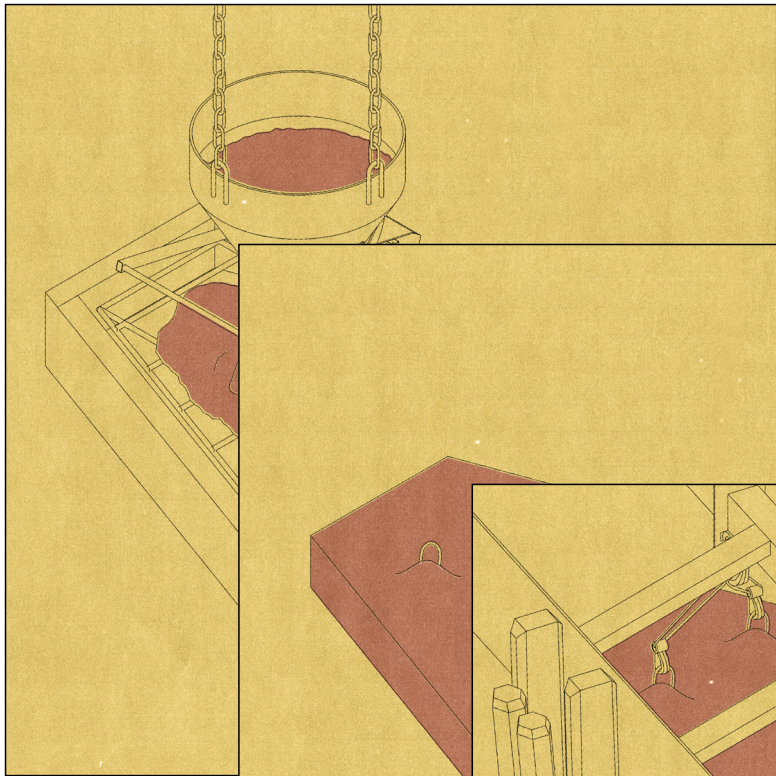
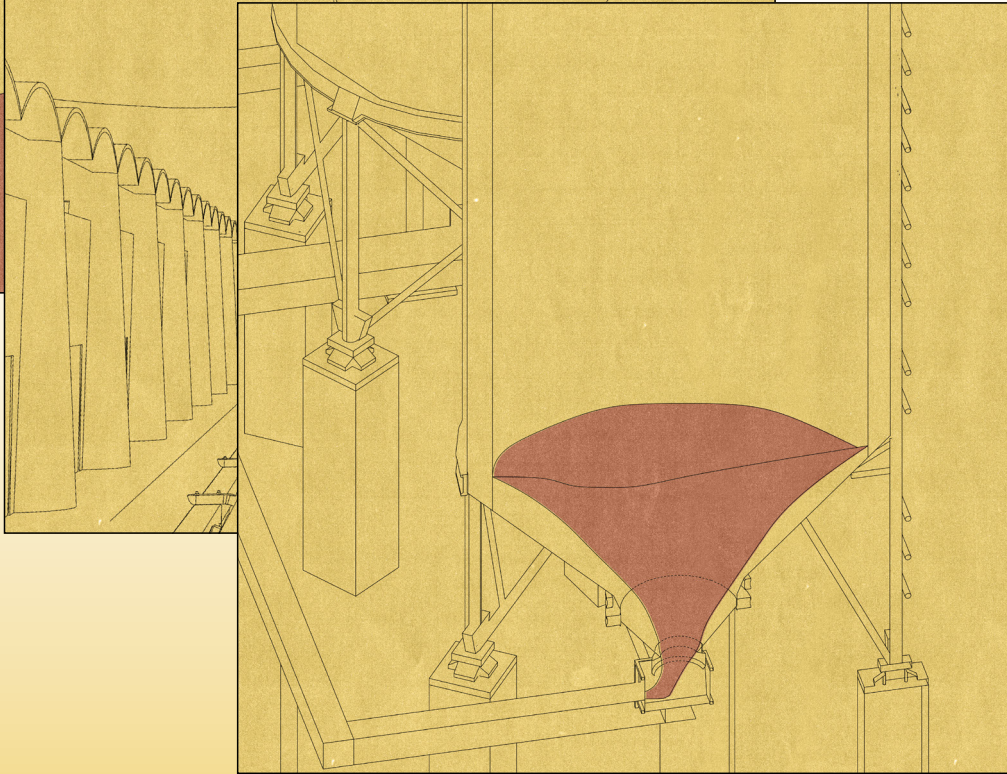
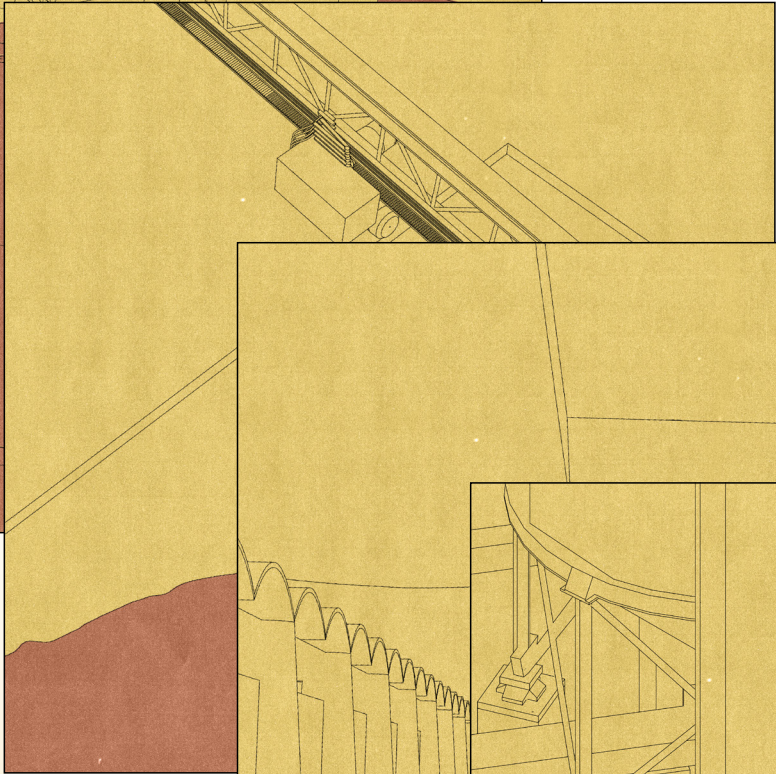
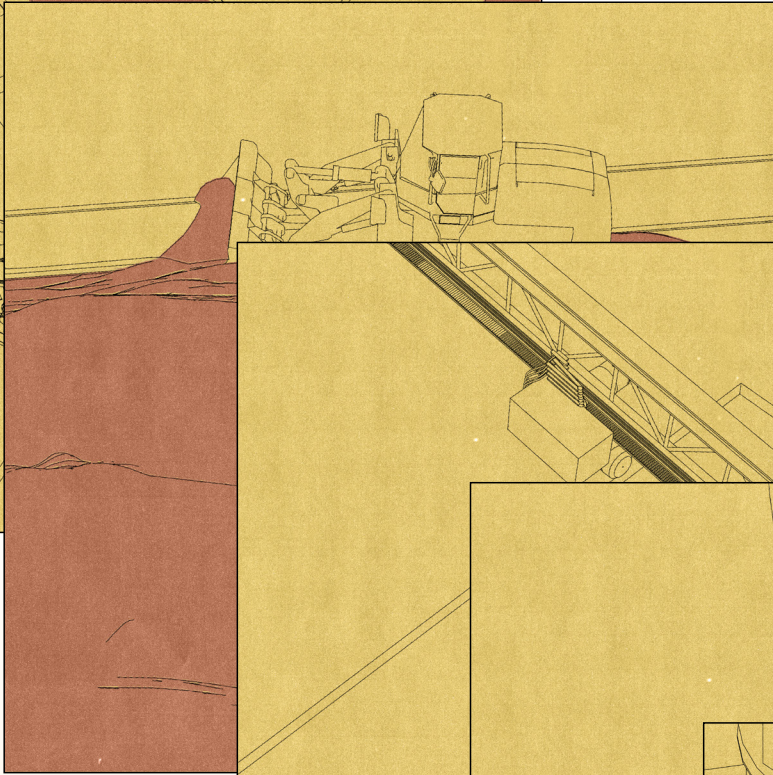
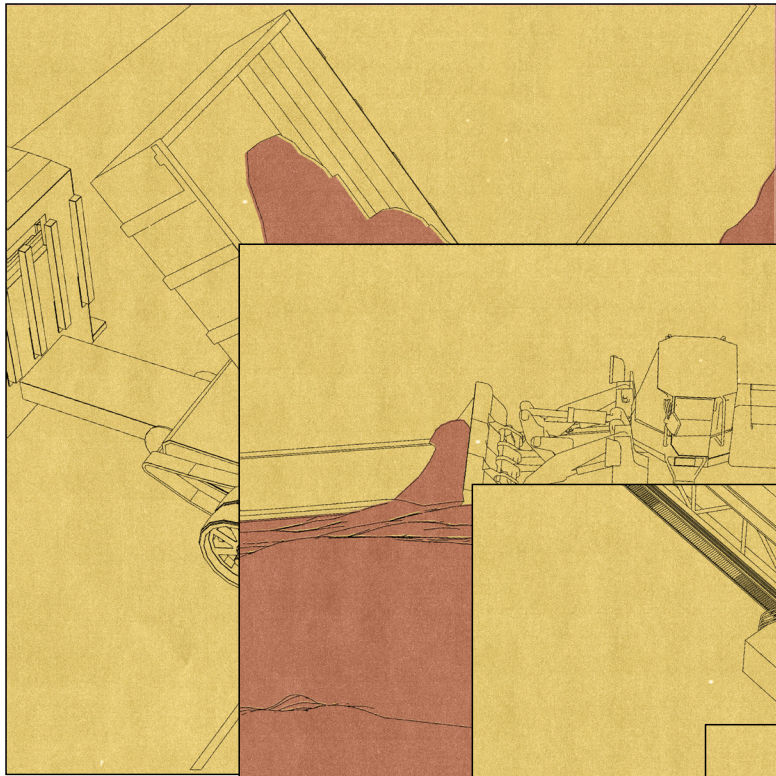




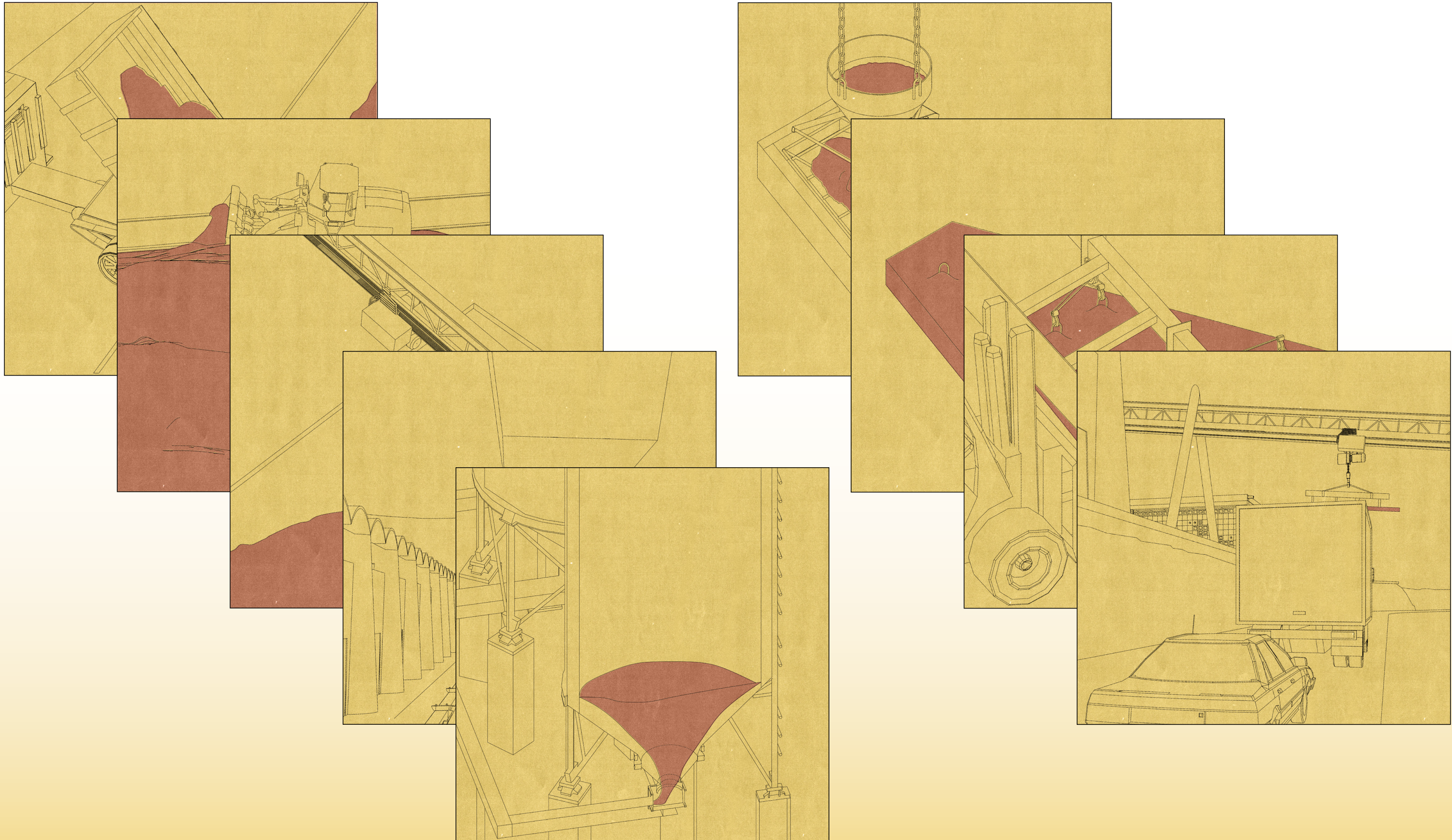




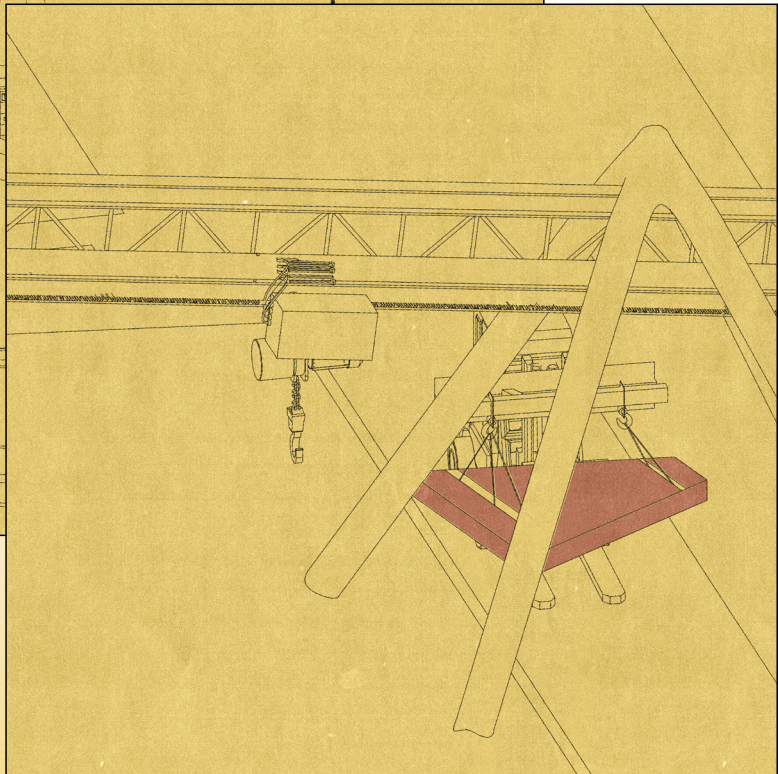
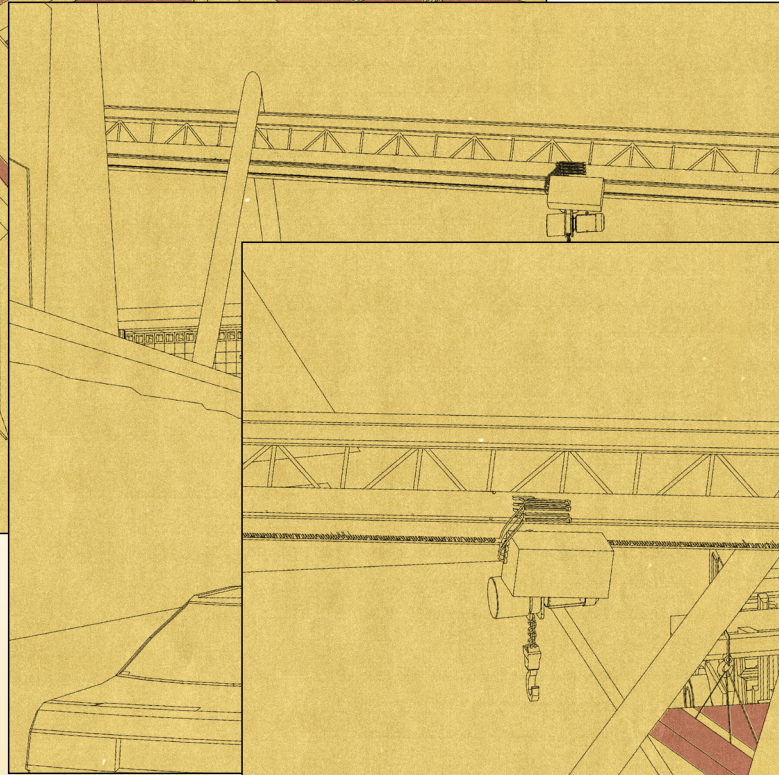
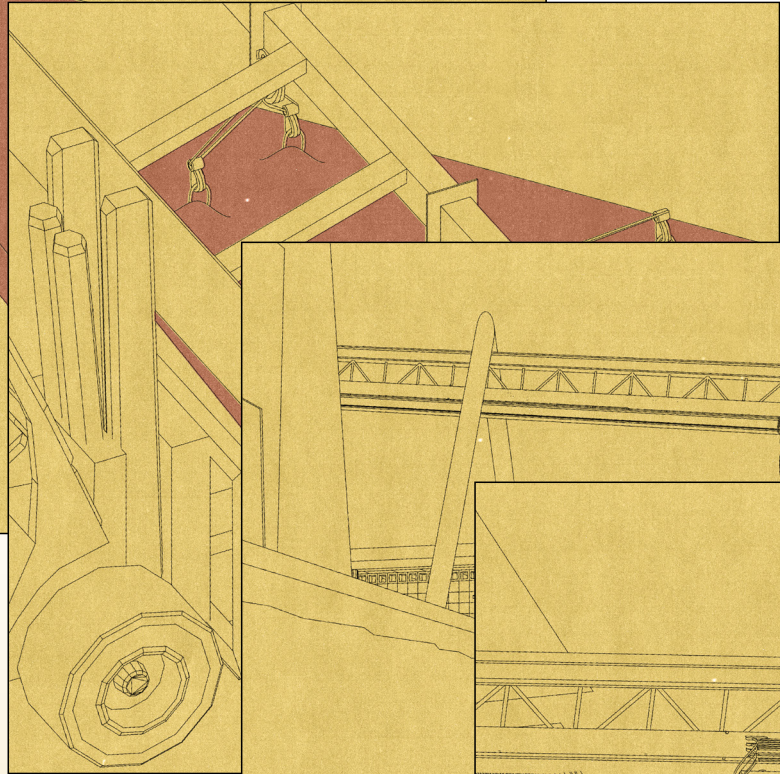
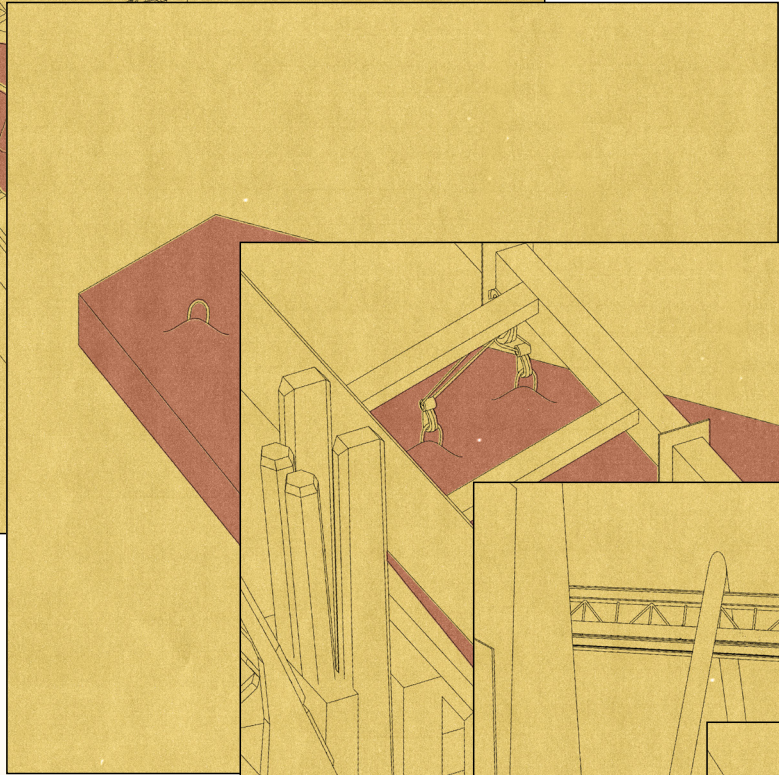
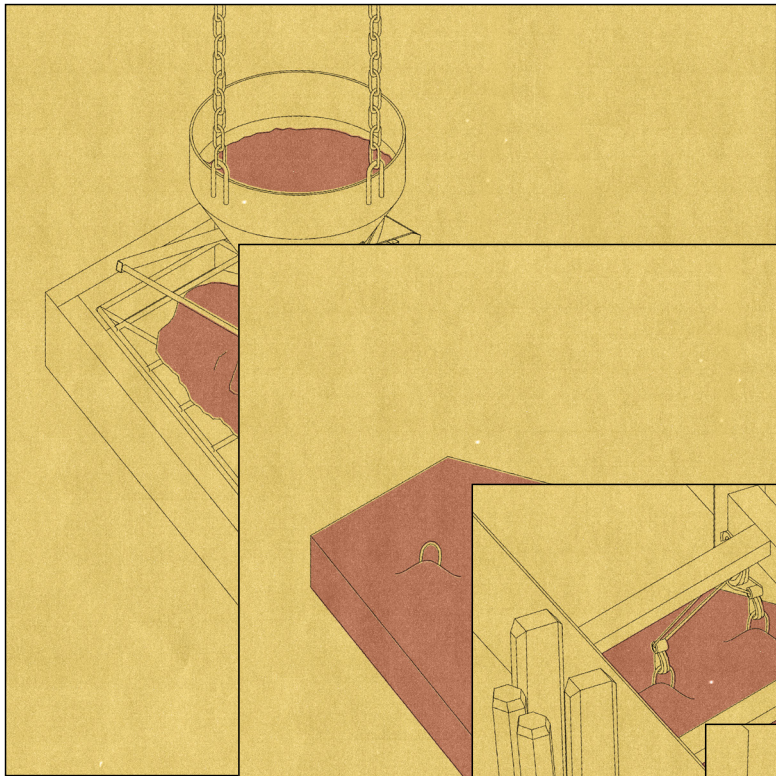
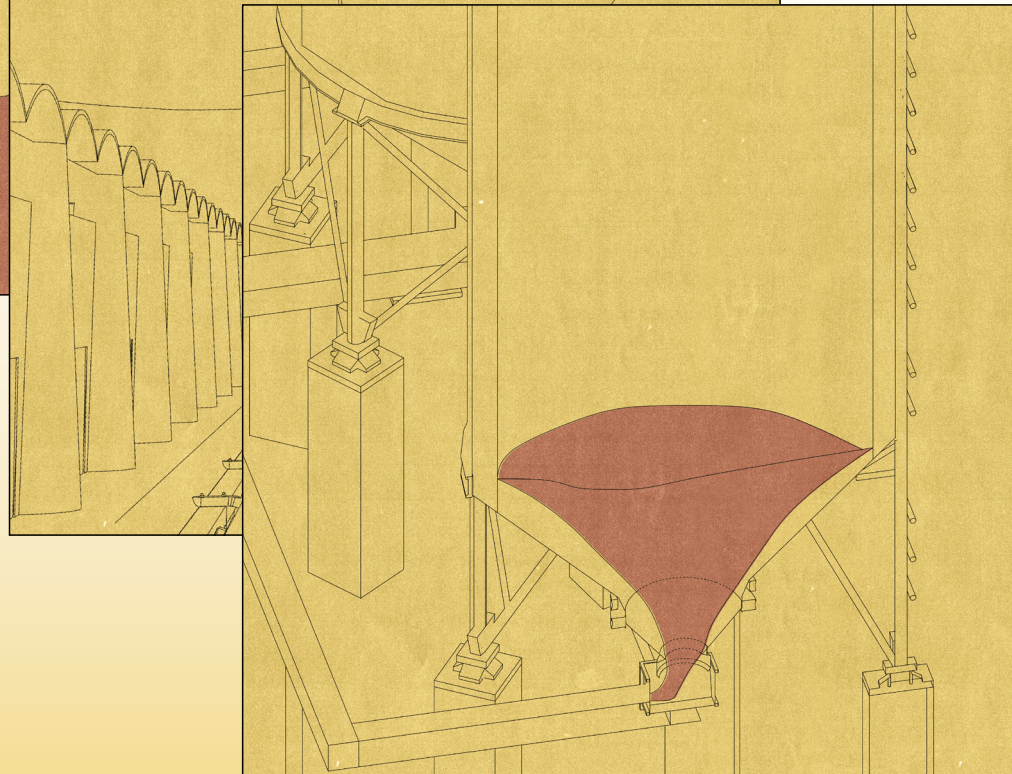
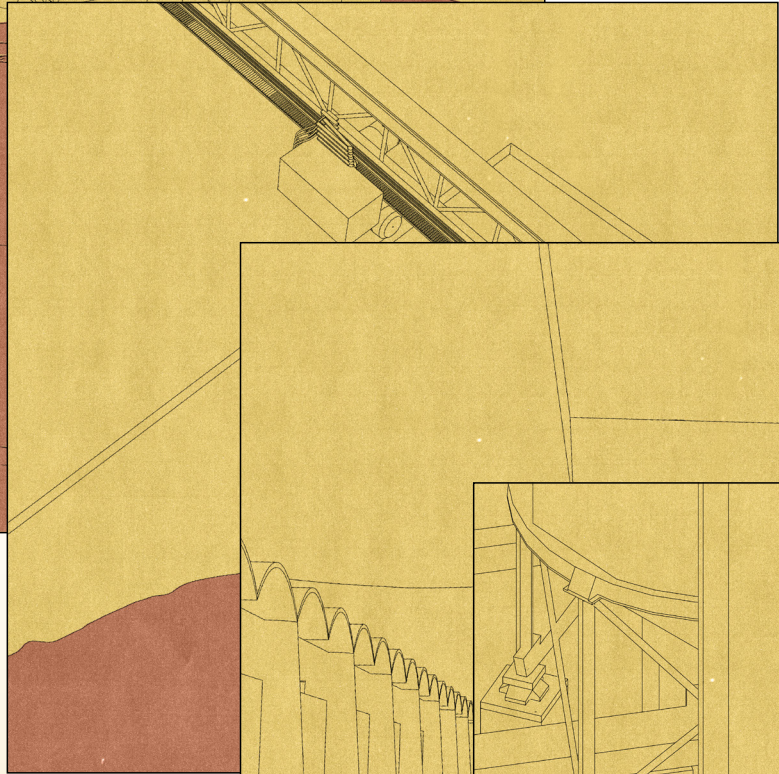
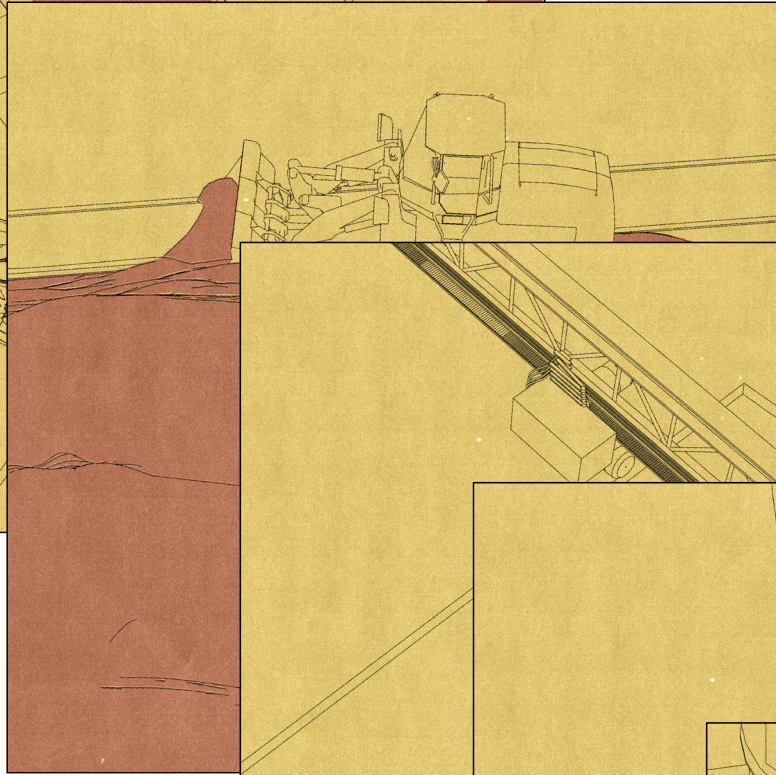
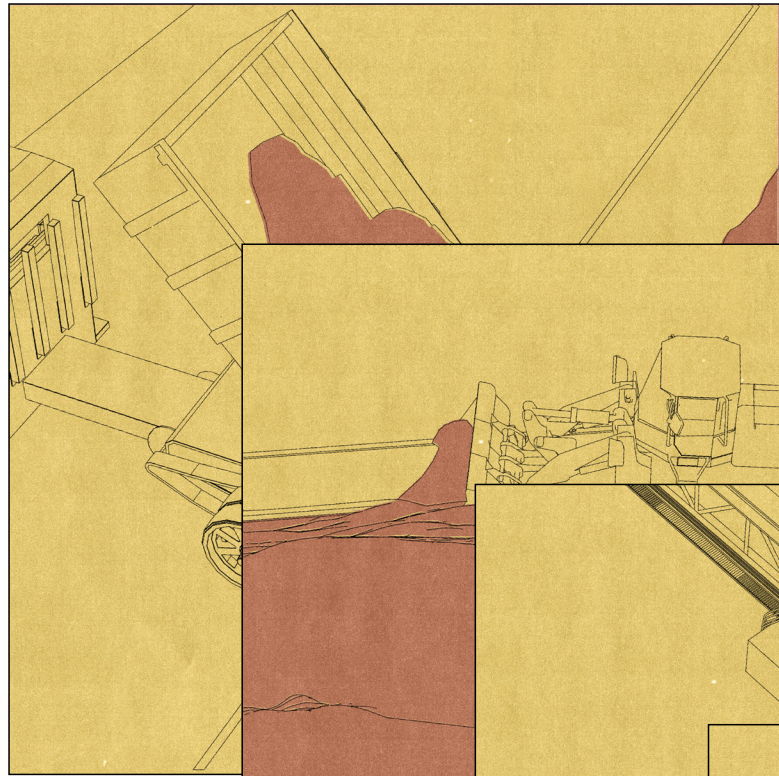




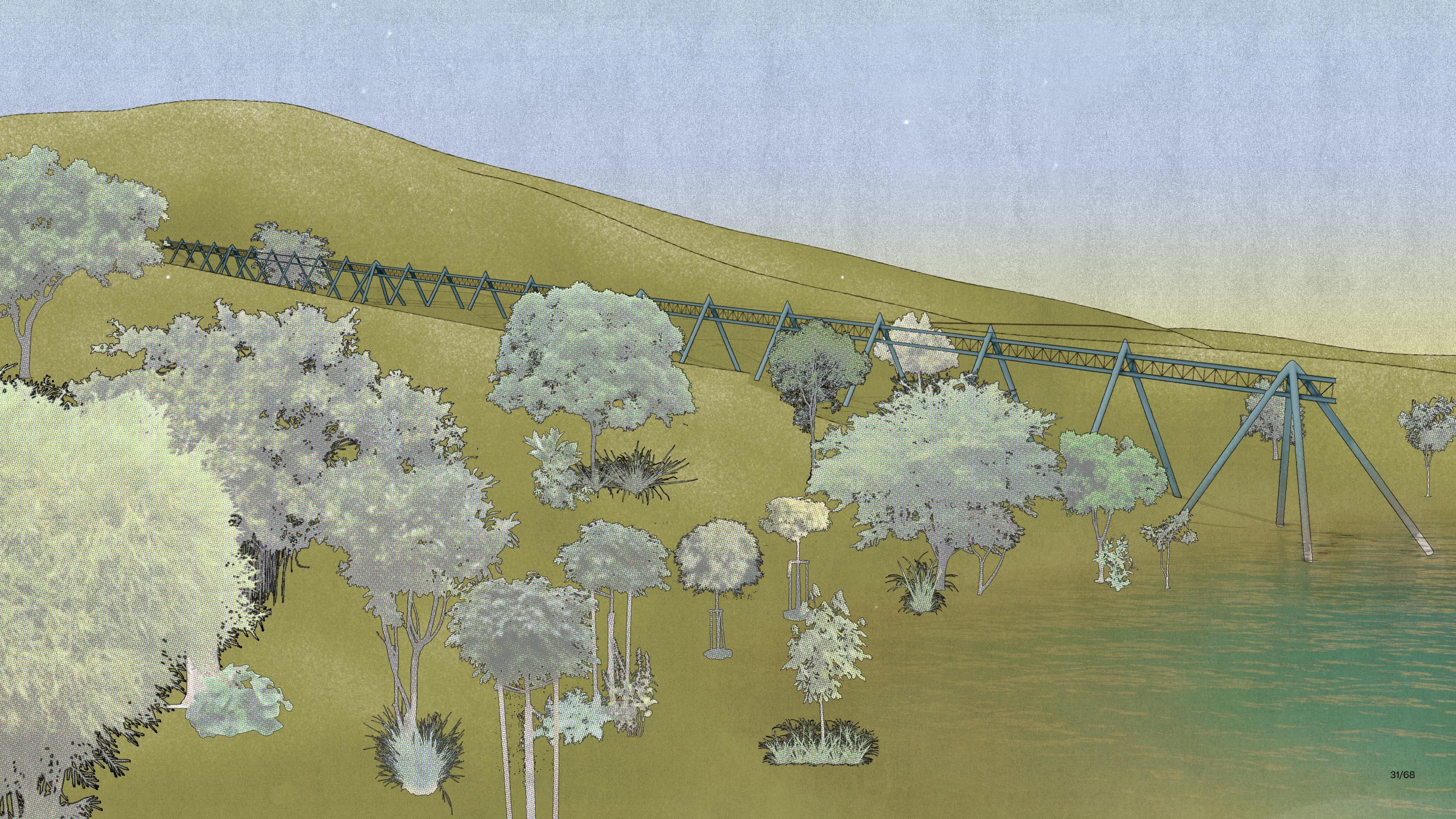








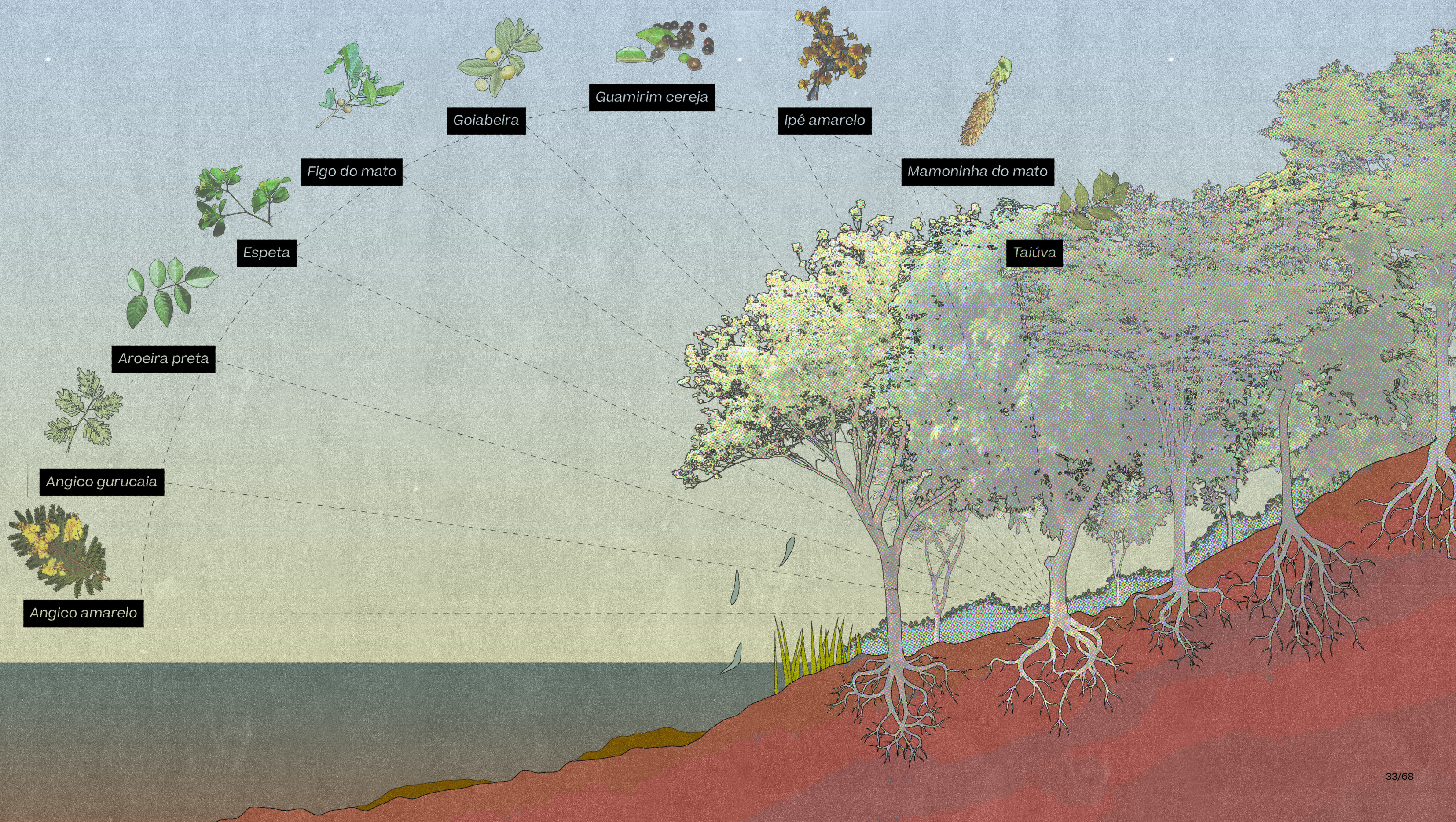












Guamirim cereja

Ipê amarelo

Mamoninha do mato

Taiúva

Goiabeira

Figo do mato

Espeta

Aroeira preta

Angico gurucaia

Angico amarelo



*To be against purity is, again, not to be for pollution, harm, sickness, or premature death. It is to be against the rhetorical or conceptual attempt to delineate and delimit the world into something separable, disentangled, and homogenous.*

ALEXIS SHOTWELL, AGAINST PURITY: LIVING ETHICALLY IN COMPROMISED TIMES, P. 15

*Only by facing the ghosts, in their materiality, and acknowledging injustice without the empty promise of complete repair (of making amends finally) can we come close to taking them at their word. The past is never closed, never finished once and for all, but there is no taking it back, setting time aright, putting the world back on its axis. There is no erasure finally. The trace of all reconfigurings are written into the enfolded materialisations of what was/is/ to-come. Time can't be fixed. To address the past (and future), to speak with ghosts, is not to entertain or reconstruct some narrative of the way it was, but to respond, to be responsible, to take responsibility for that which we inherit (from the past and the future) ...*

KAREN BARAD, QUANTUM ENTANGLEMENTS AND HAUNTOLOGICAL RELATIONS OF INHERITANCE: DIS/CONTINUITIES, SPACETIME ENFOLDINGS, AND JUSTICE-TO-COME, P. 264

Angico amarelo

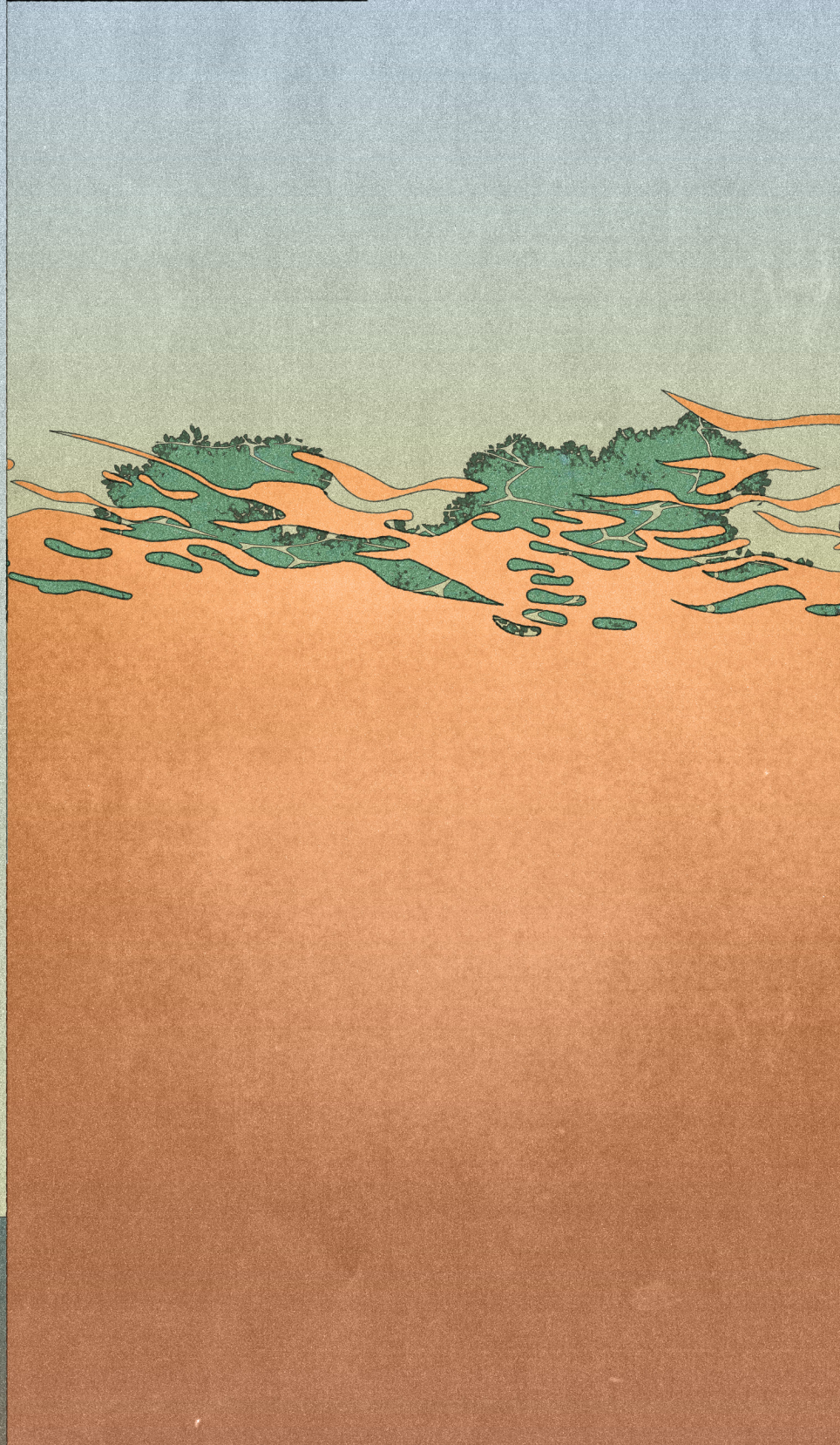
Angico amarelo

Mamoninha do mato

Taiúva



Year 0: Barren benthos



Year 0+x: Slow repopulation



Year 0+x+y: Thriving biota





Year 0: Barren benthos

Year 0+x: Slow repopulation

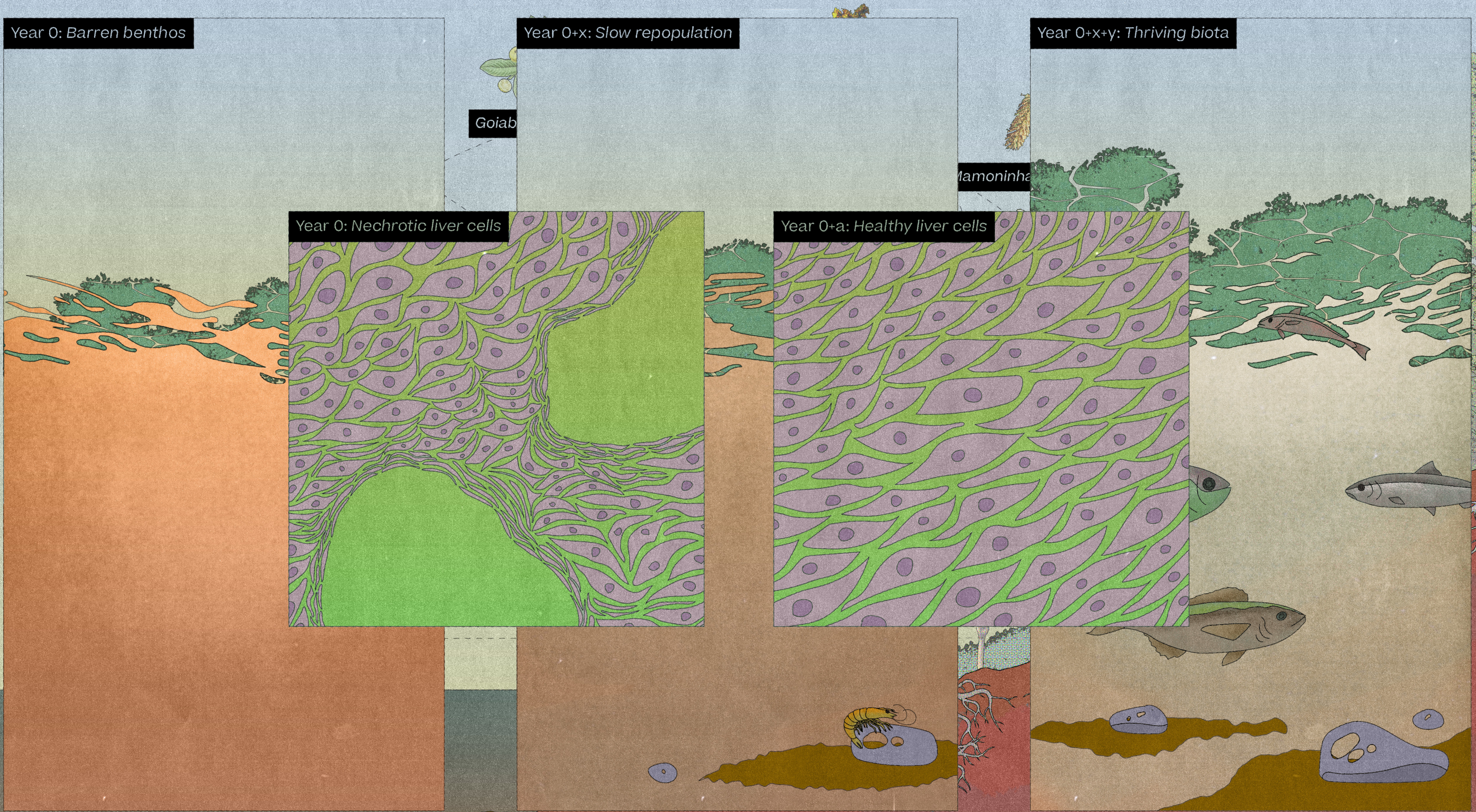
Year 0+x+y: Thriving biota

Goiab

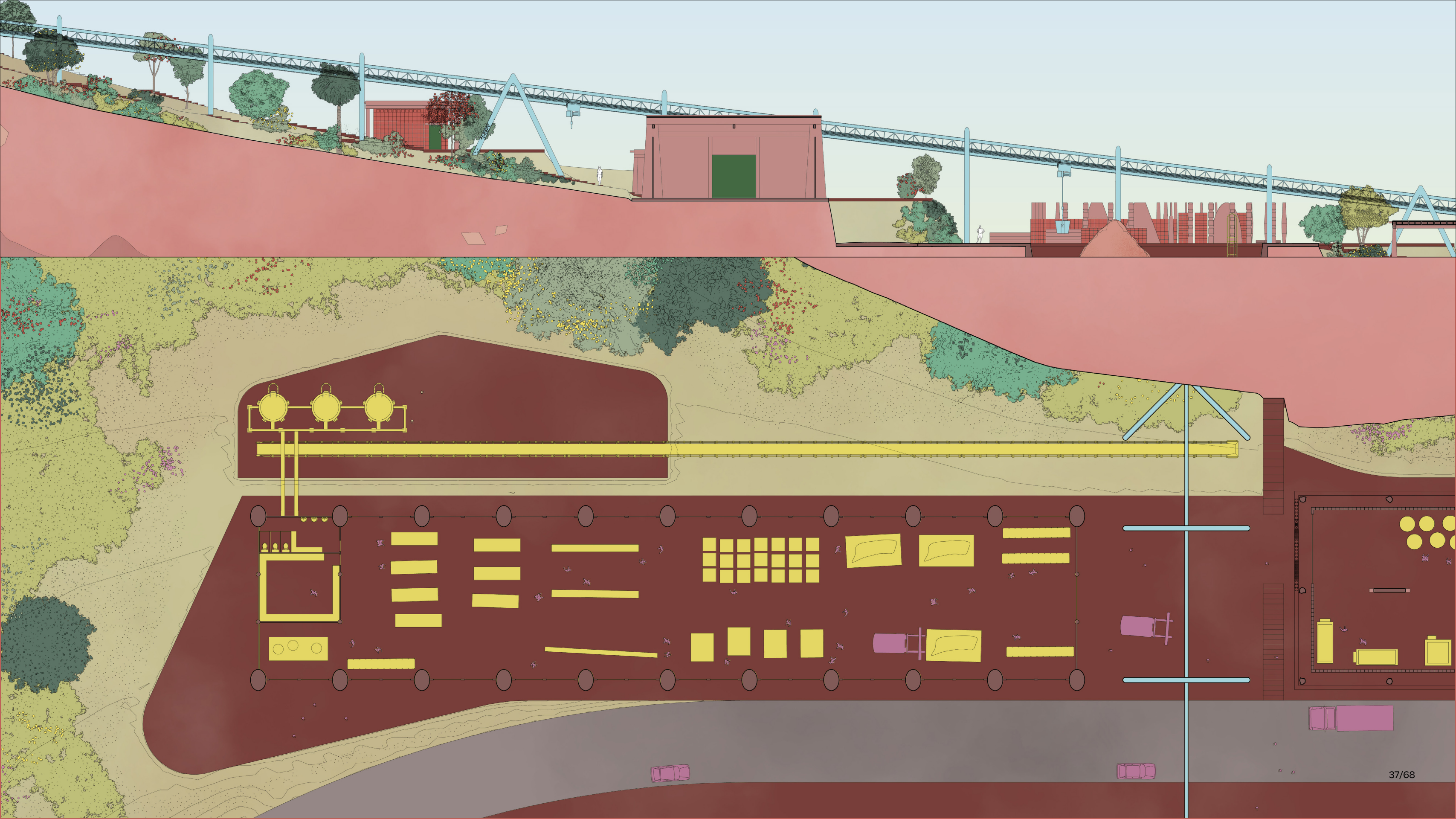
Mamoninha

Year 0: Necrotic liver cells

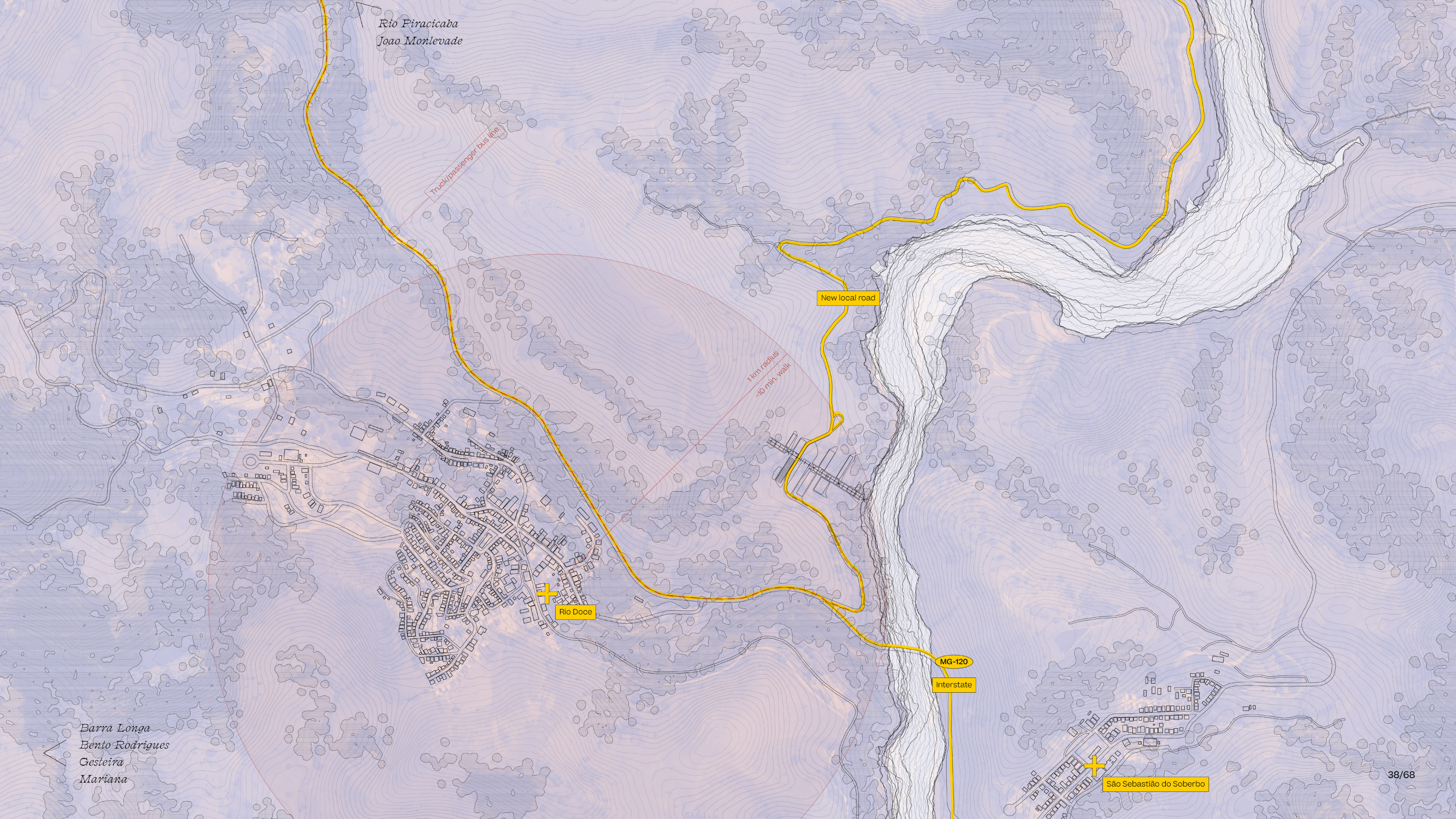
Year 0+a: Healthy liver cells











Rio Piracicaba  
Joao Monlevade

Truck/passenger bus line

New local road

1 km radius  
10 min. walk

Rio Doce

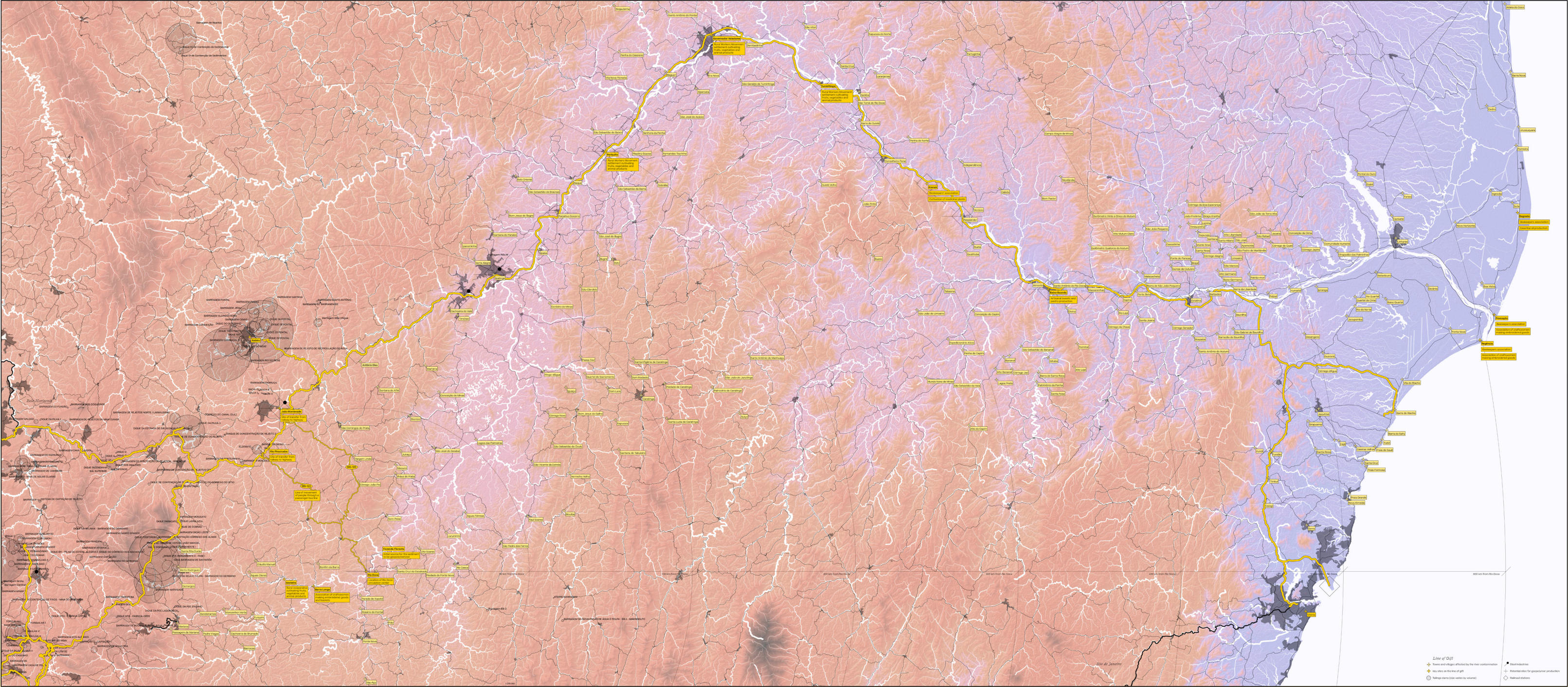
MG-120

Interstate

Barra Longa  
Bento Rodrigues  
Gesteira  
Mariana

São Sebastião do Soberbo

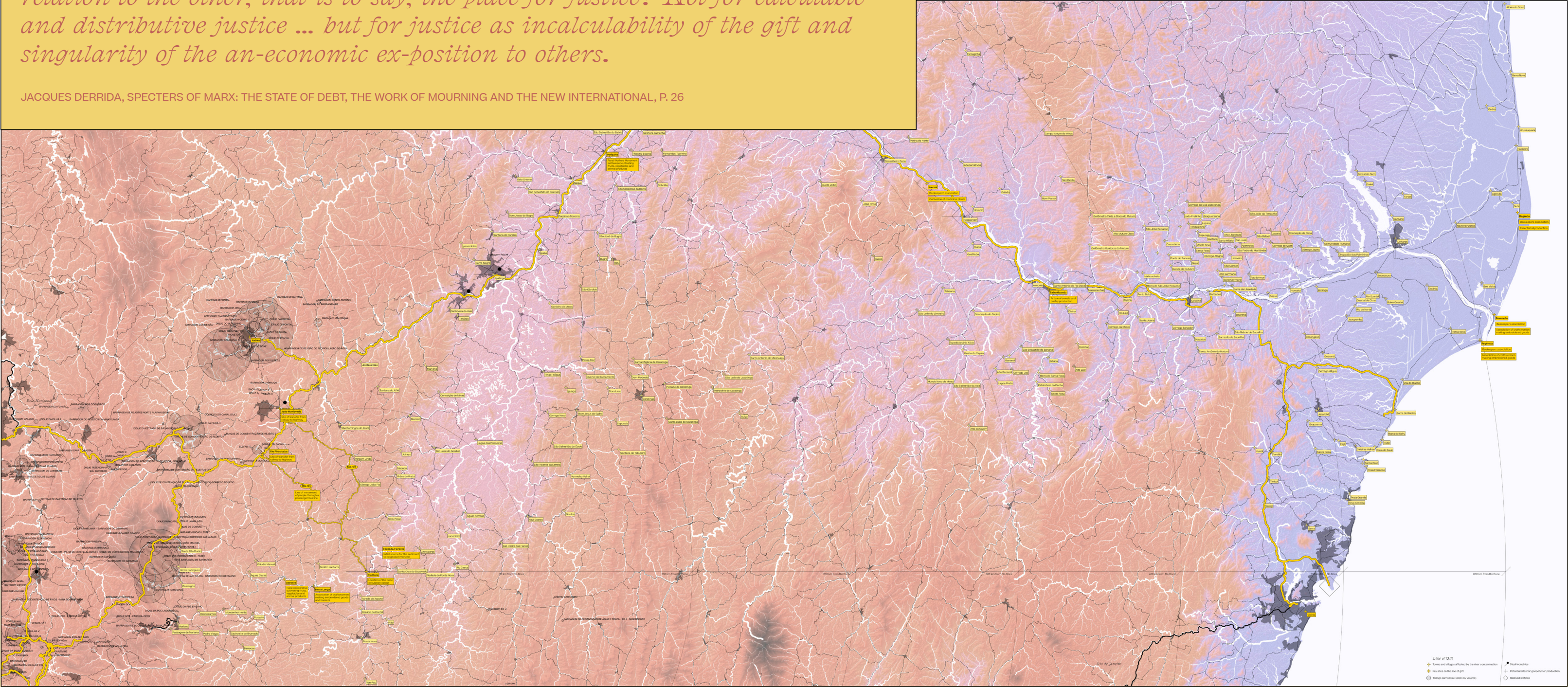






*How to distinguish between two disadjustments, between the disjuncture of the unjust and the one that opens up the infinite asymmetry of the relation to the other, that is to say, the place for justice? Not for calculable and distributive justice ... but for justice as incalculability of the gift and singularity of the an-economic ex-position to others.*

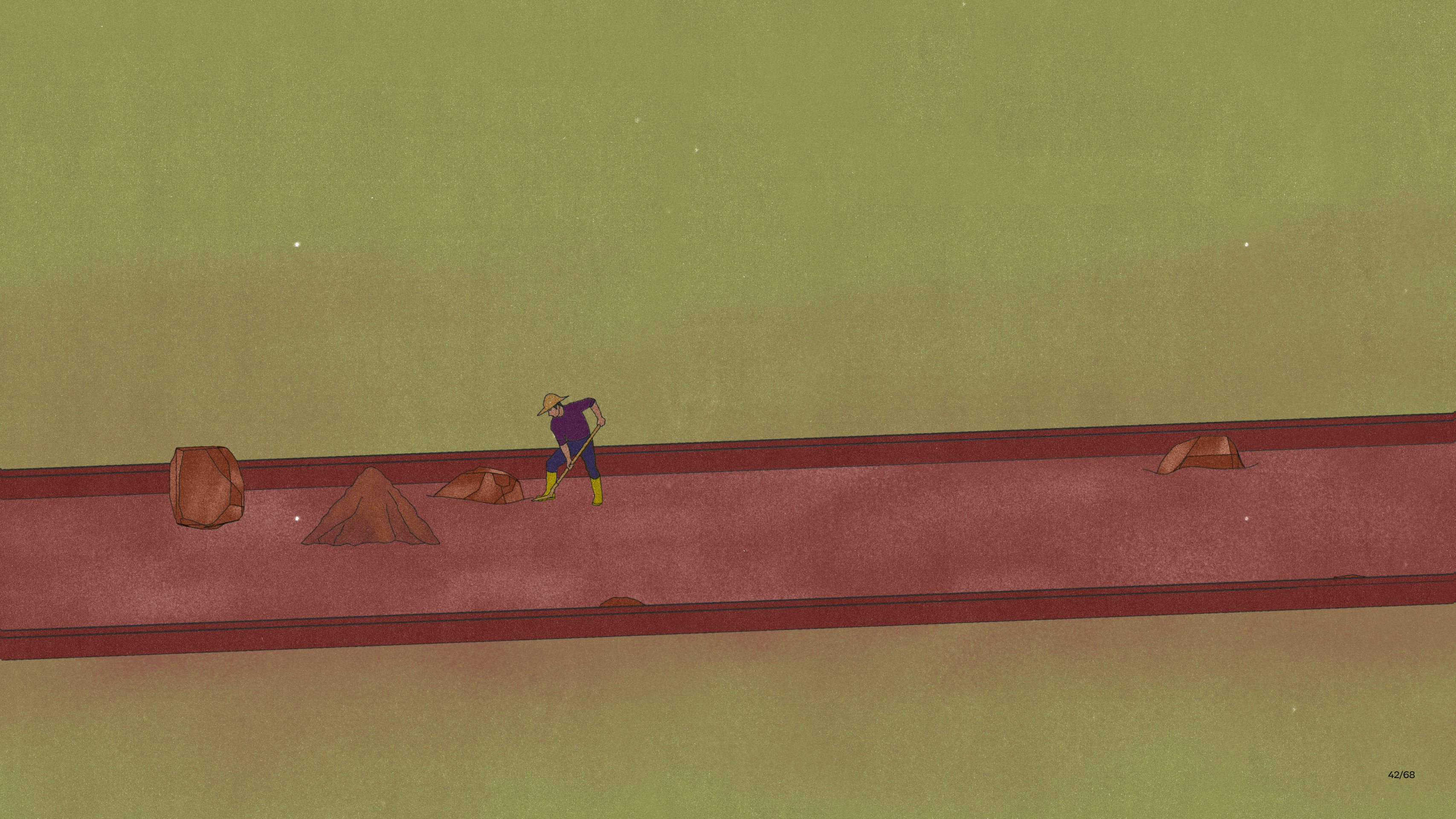
JACQUES DERRIDA, SPECTERS OF MARX: THE STATE OF DEBT, THE WORK OF MOURNING AND THE NEW INTERNATIONAL, P. 26



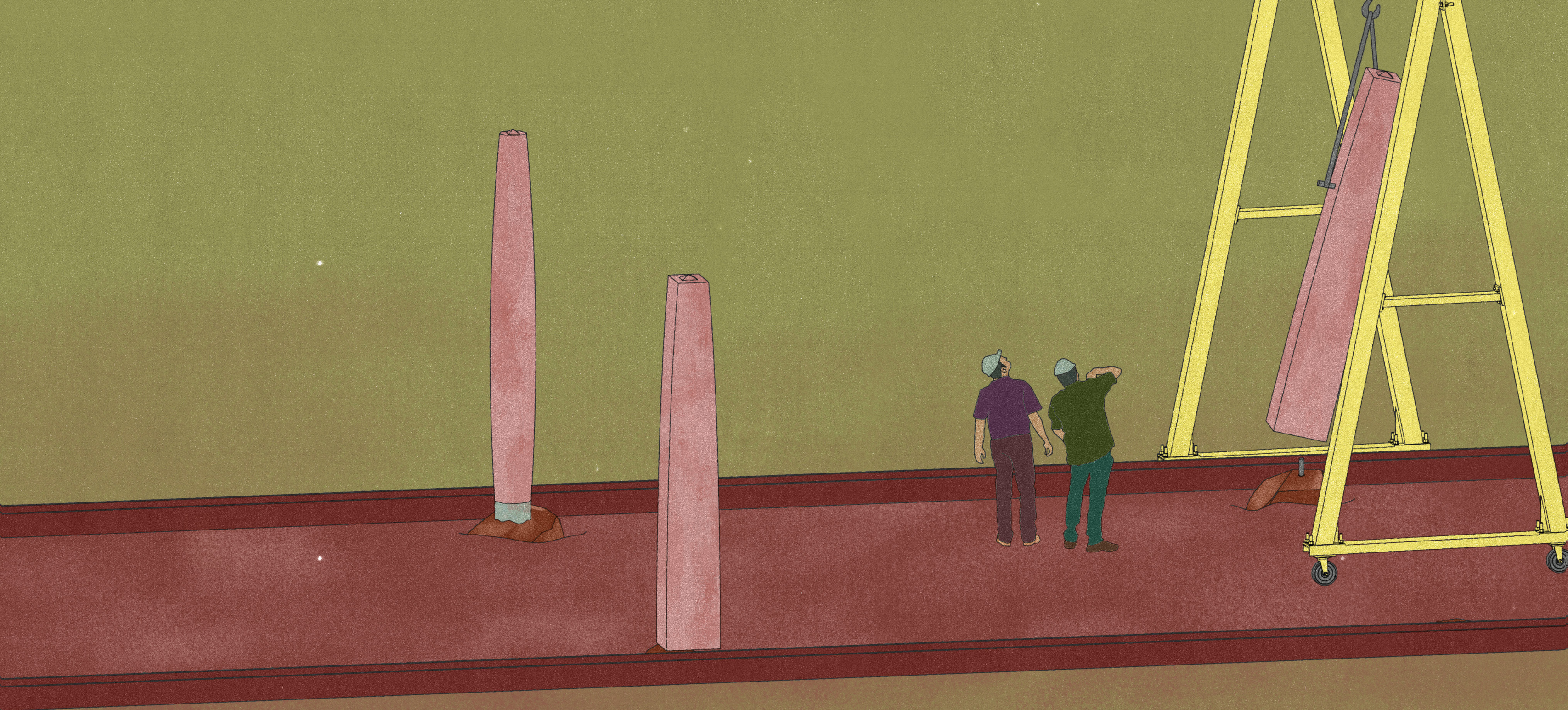




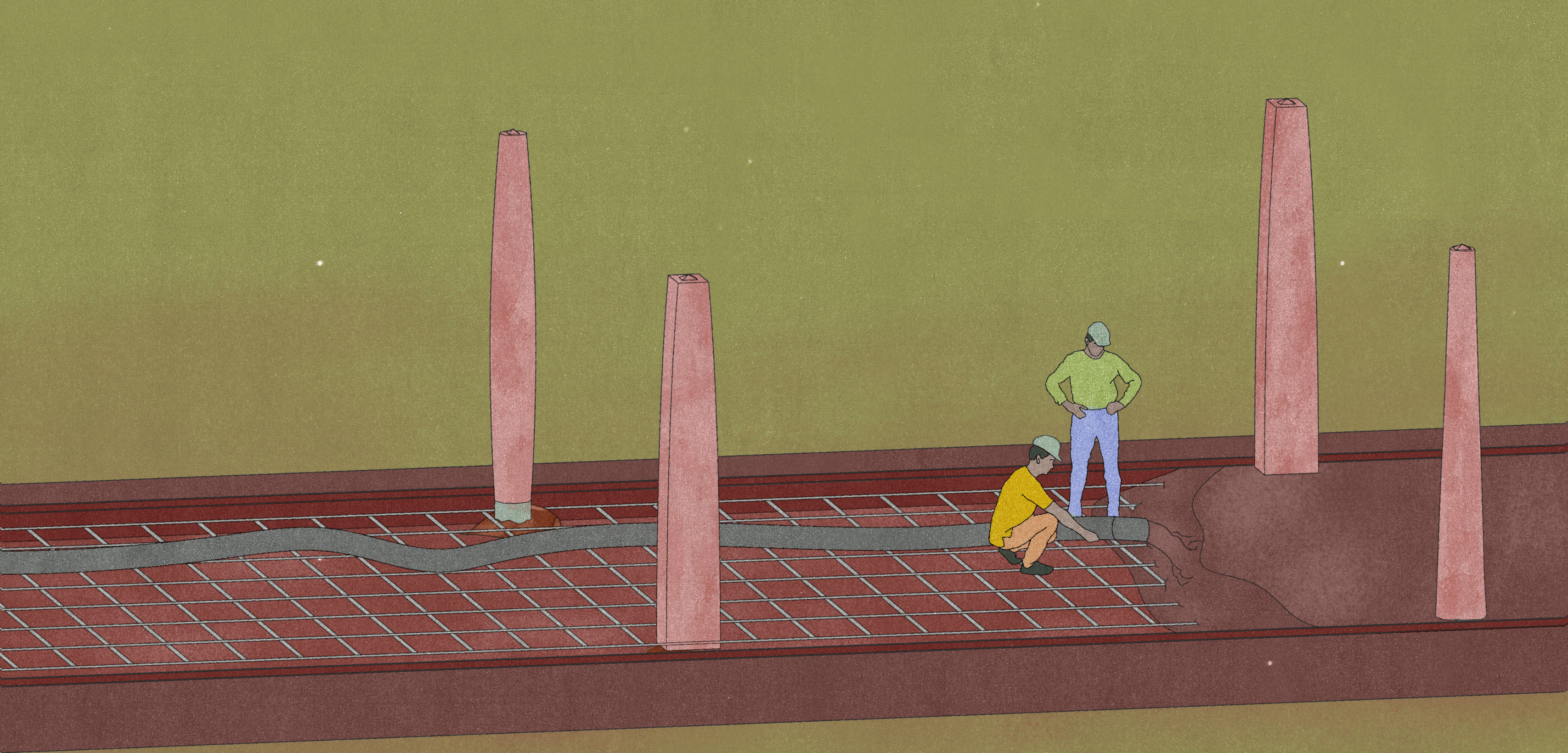








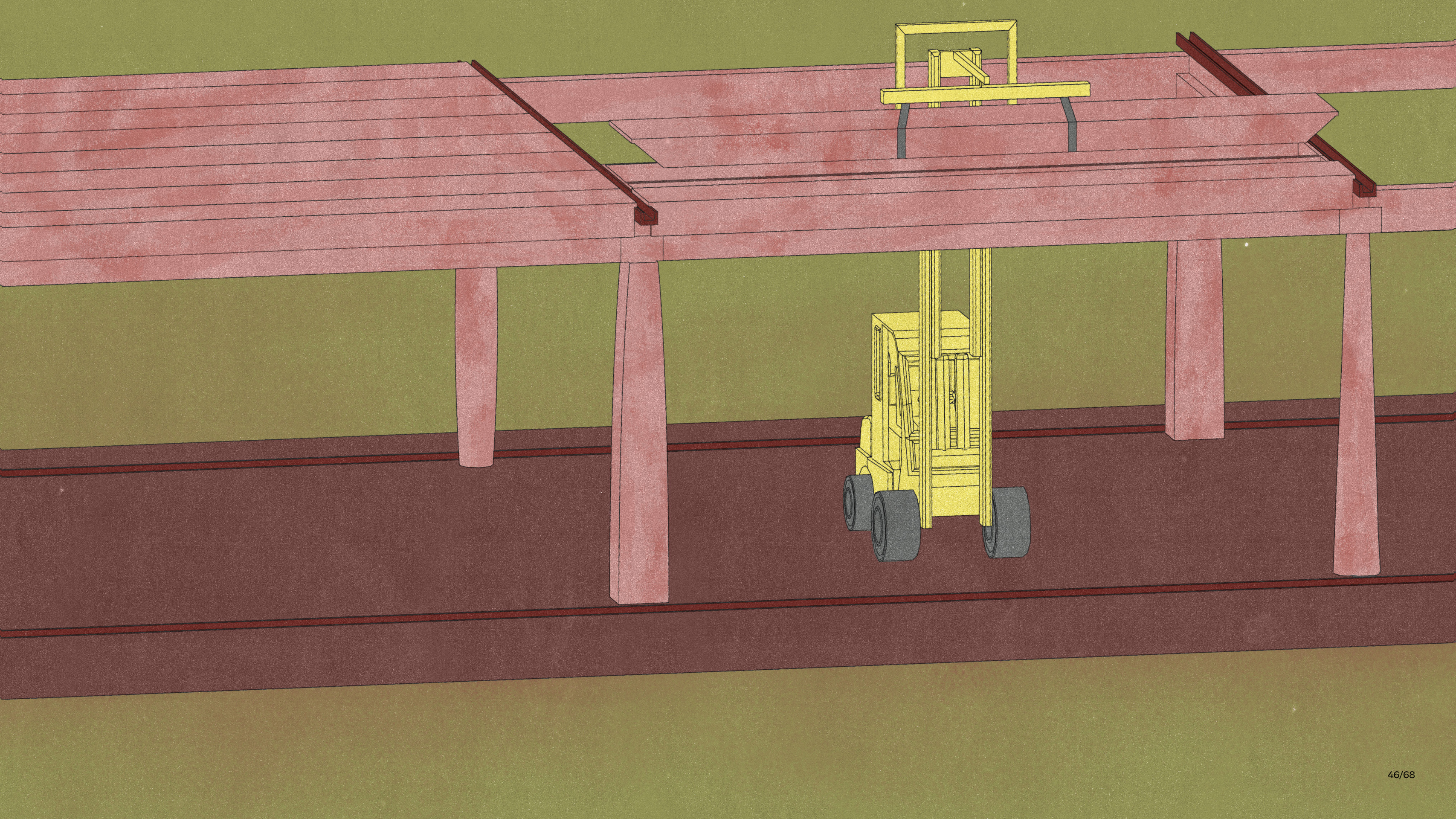




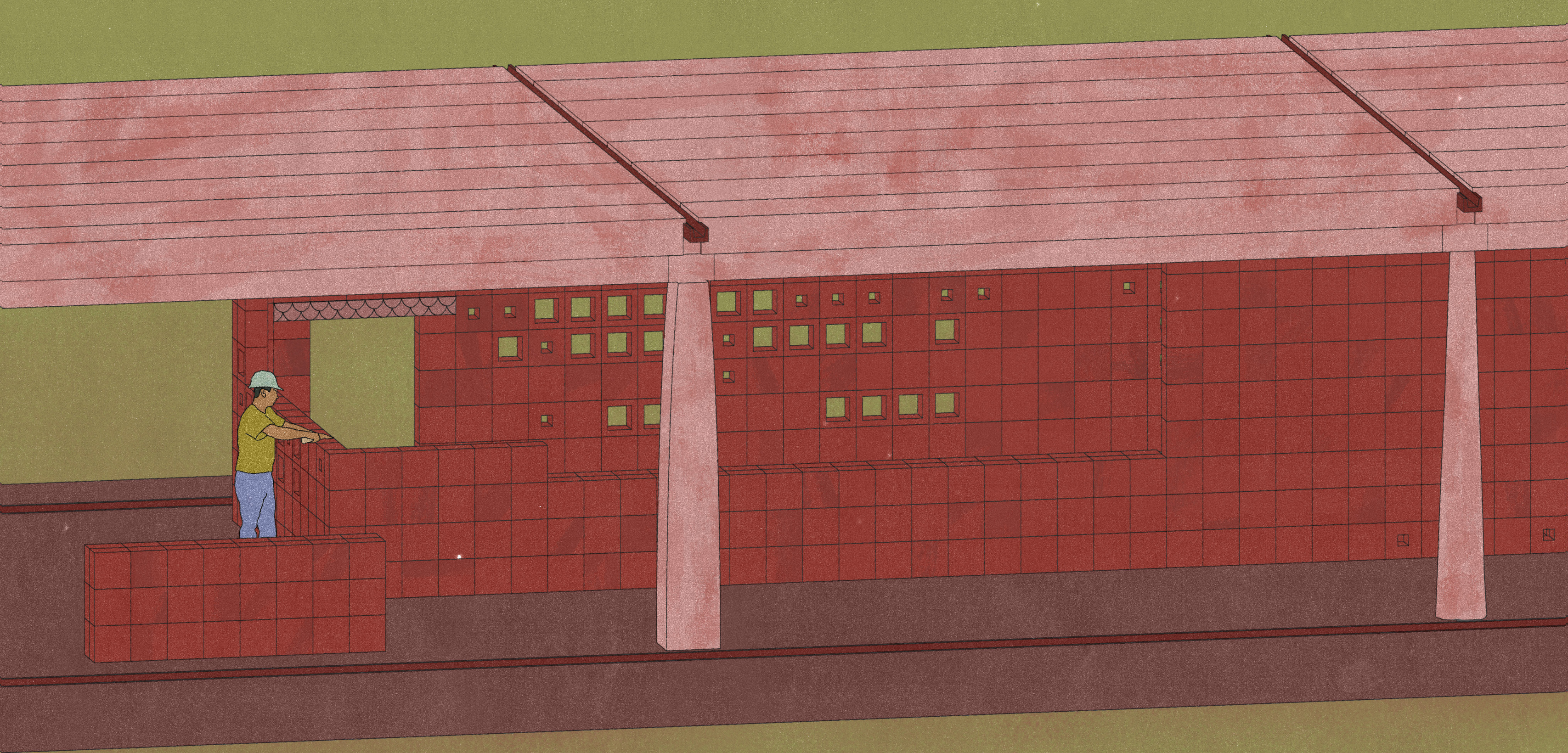




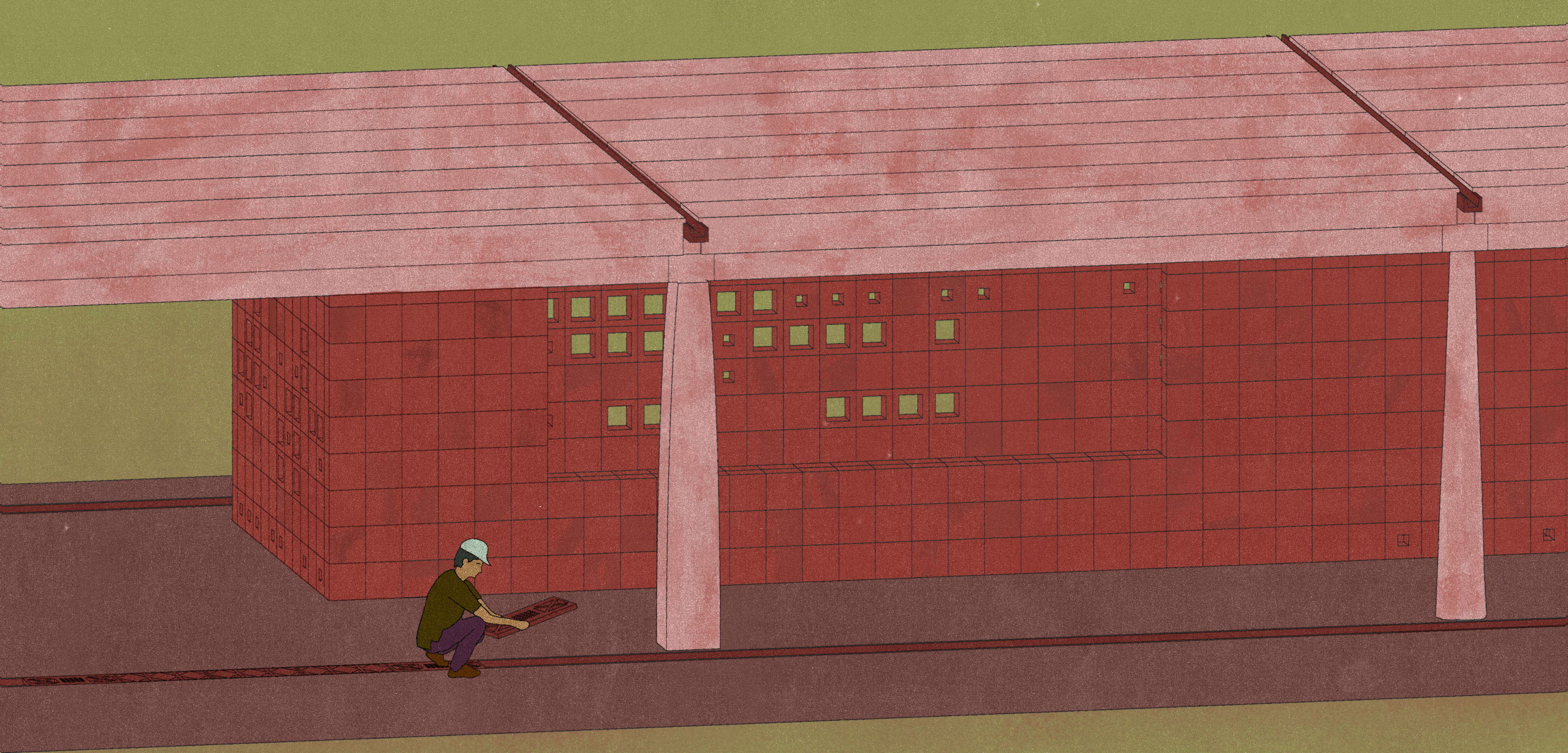




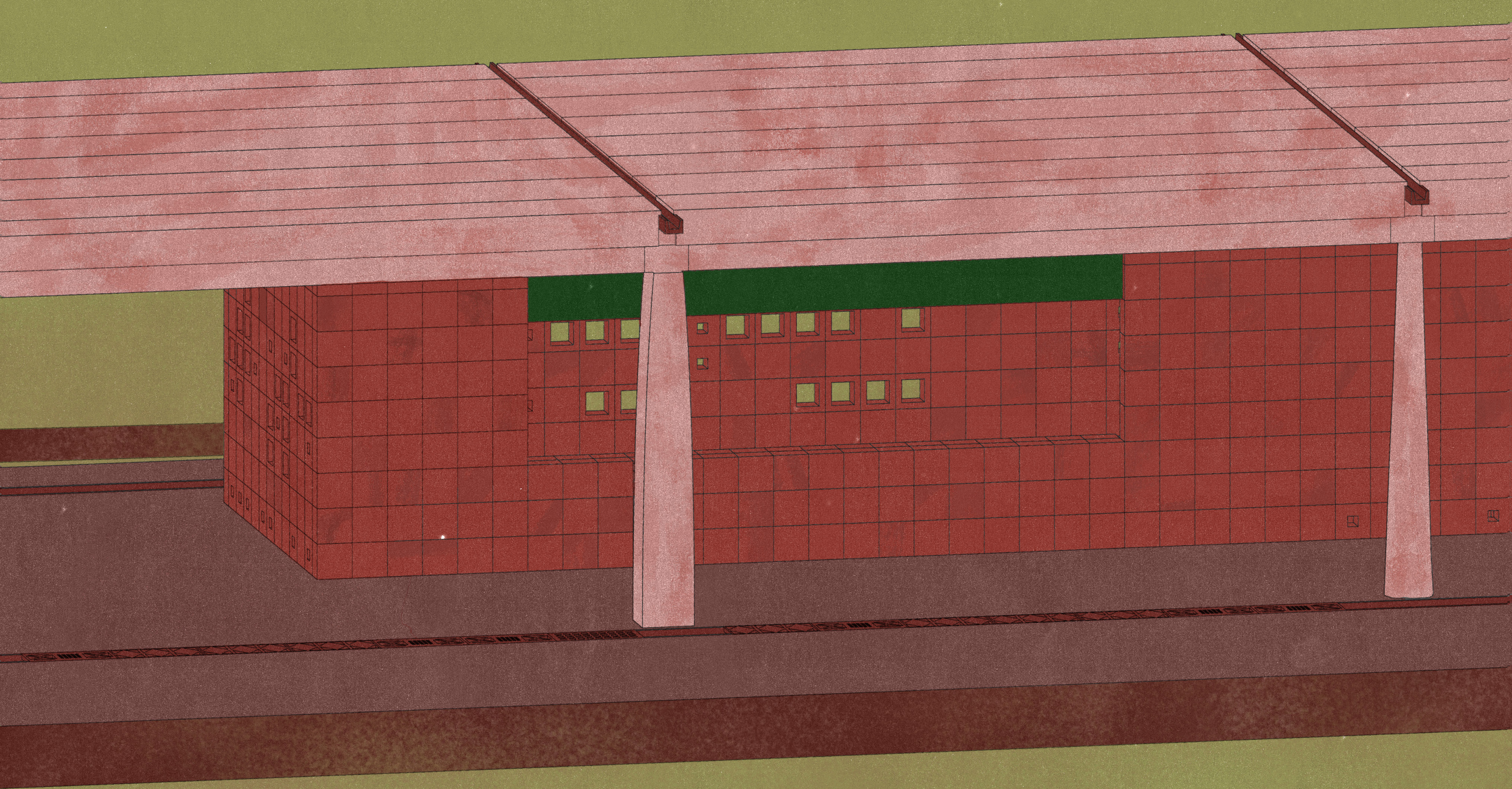




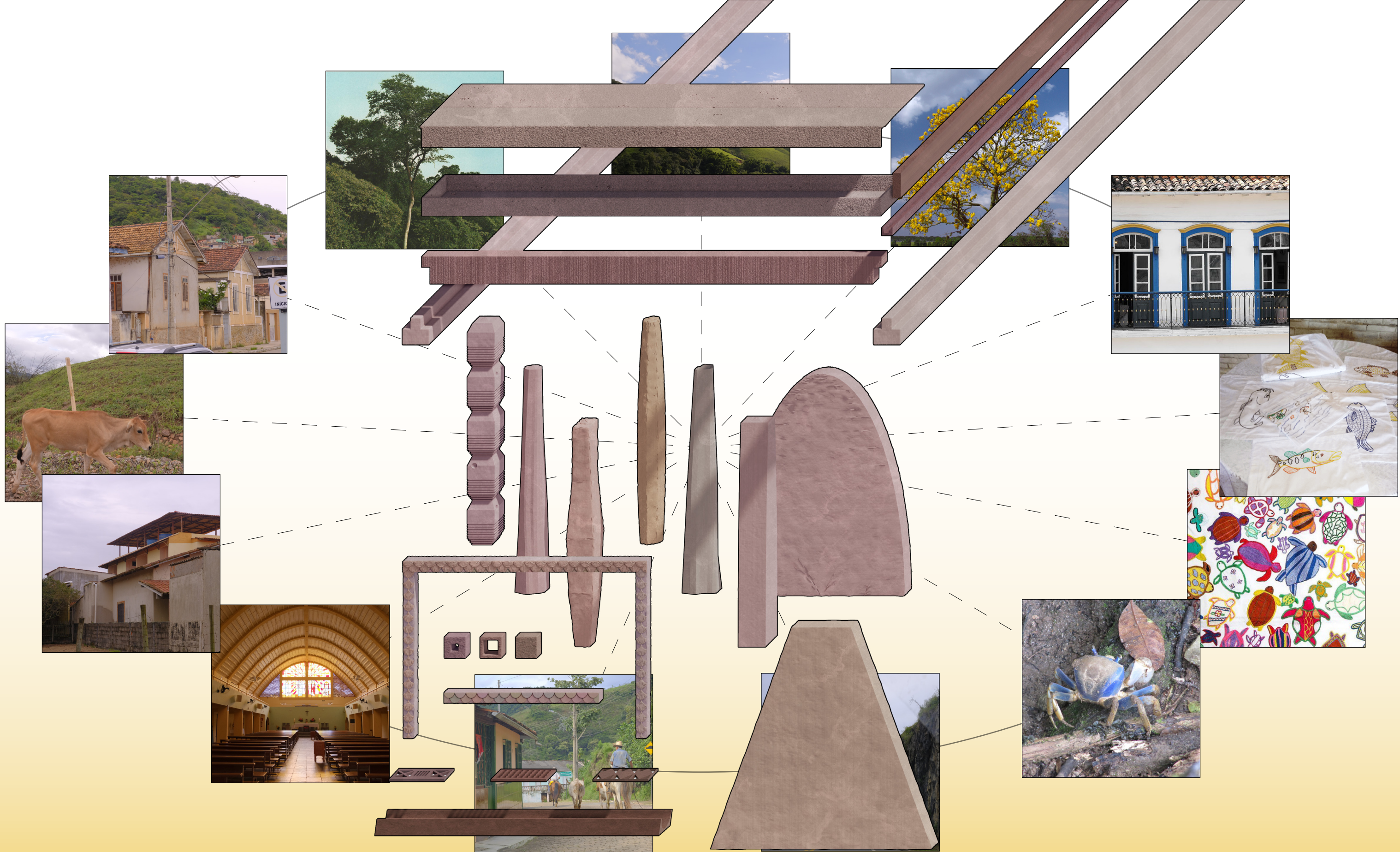








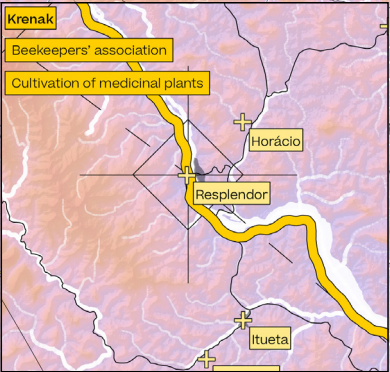
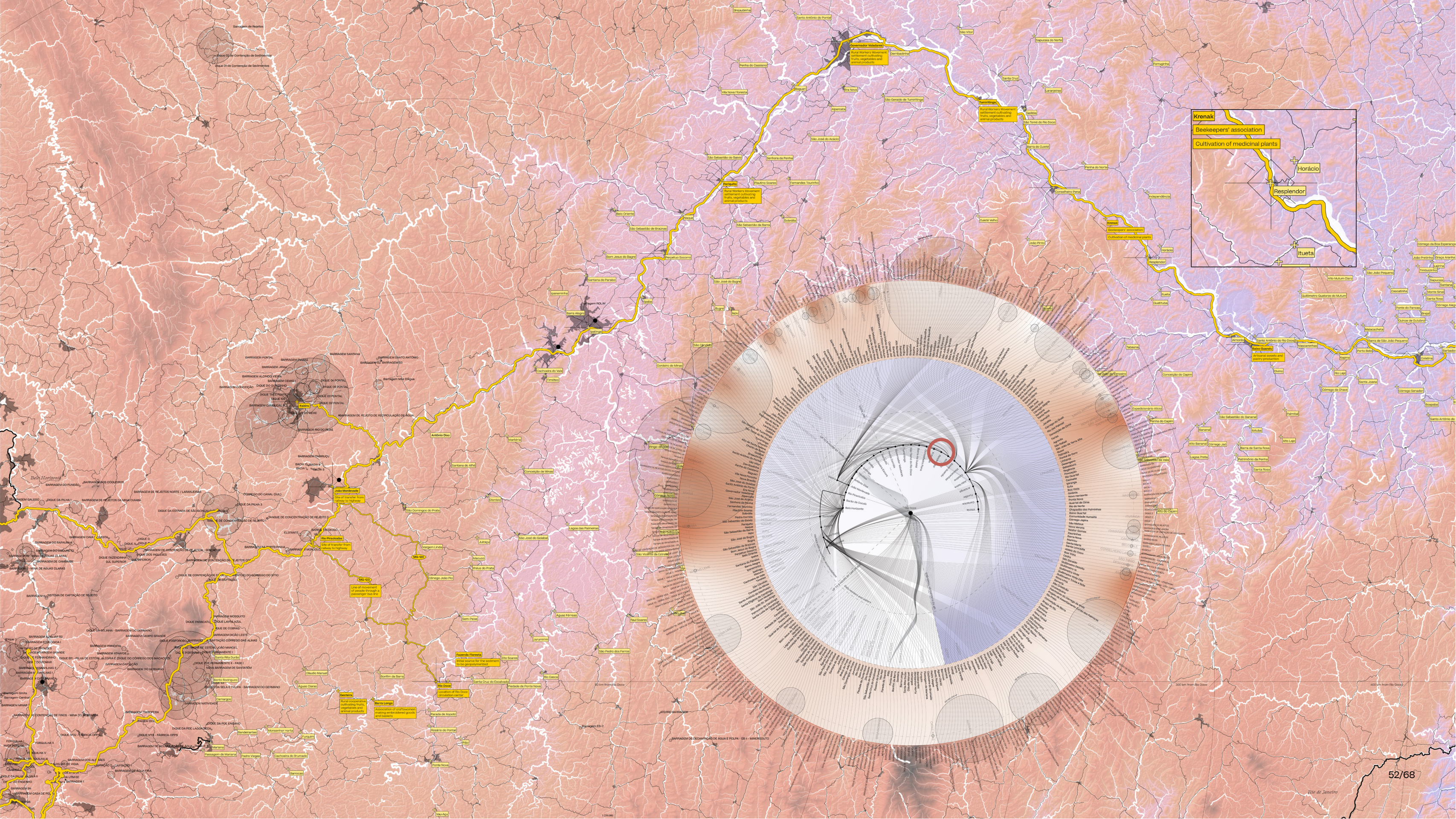




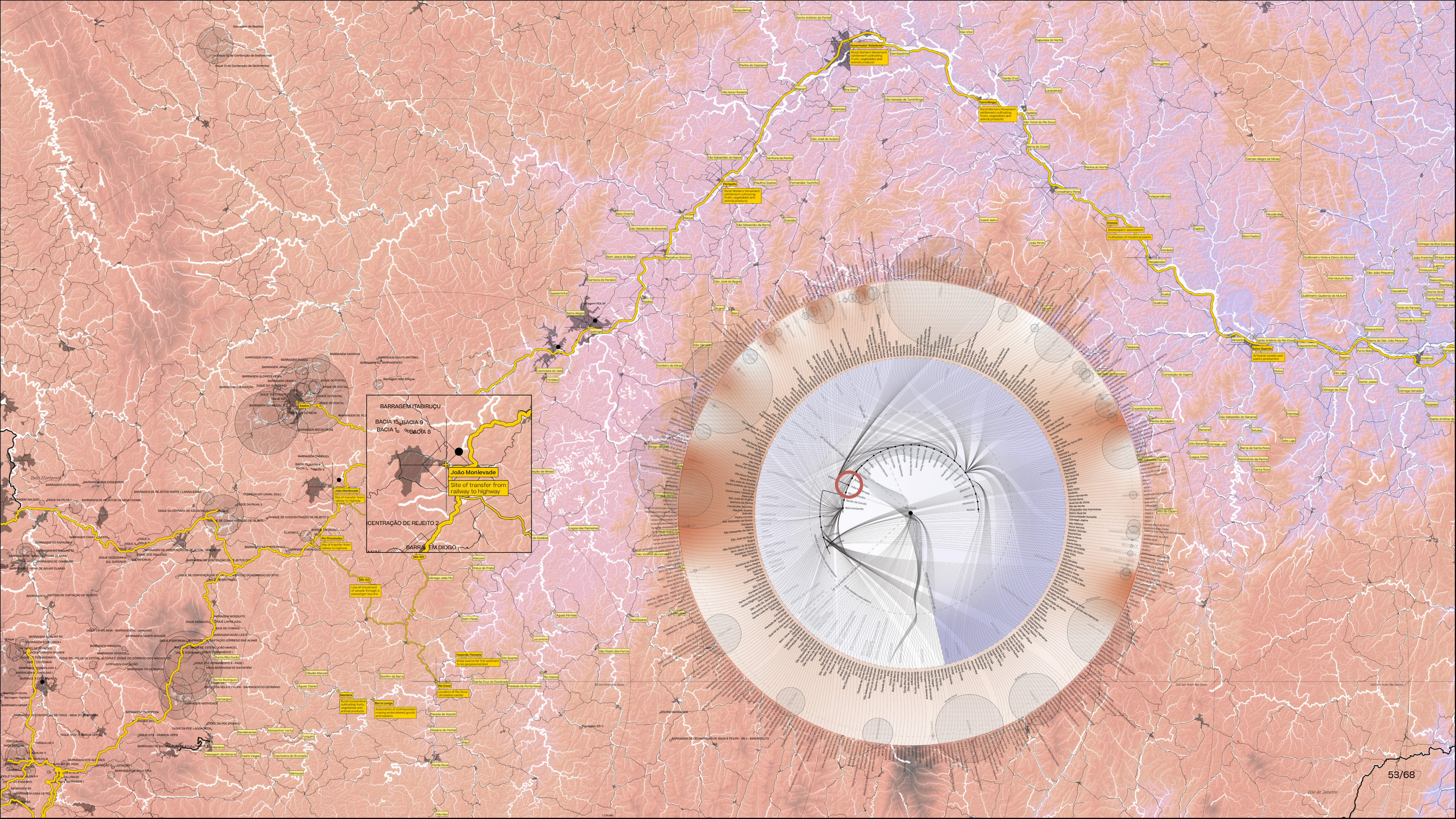




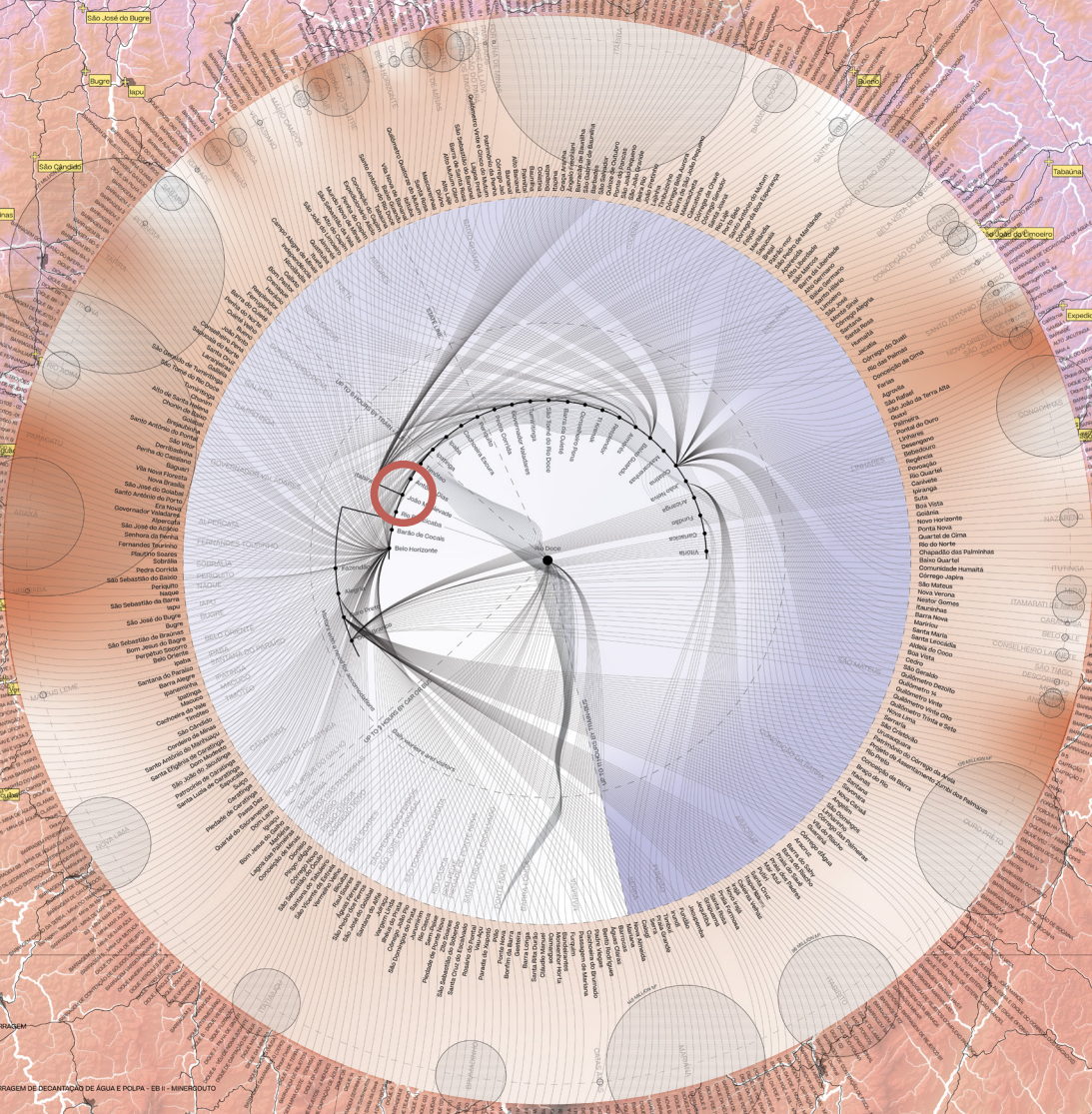








BARRAGEM ITAIPU  
BACIA 15, BACIA 9, BACIA 1, BACIA 8  
João Monlevade  
Site of transfer from railway to highway  
CENTRAÇÃO DE REJEITO 2  
BARRAGEM EM DIOGO



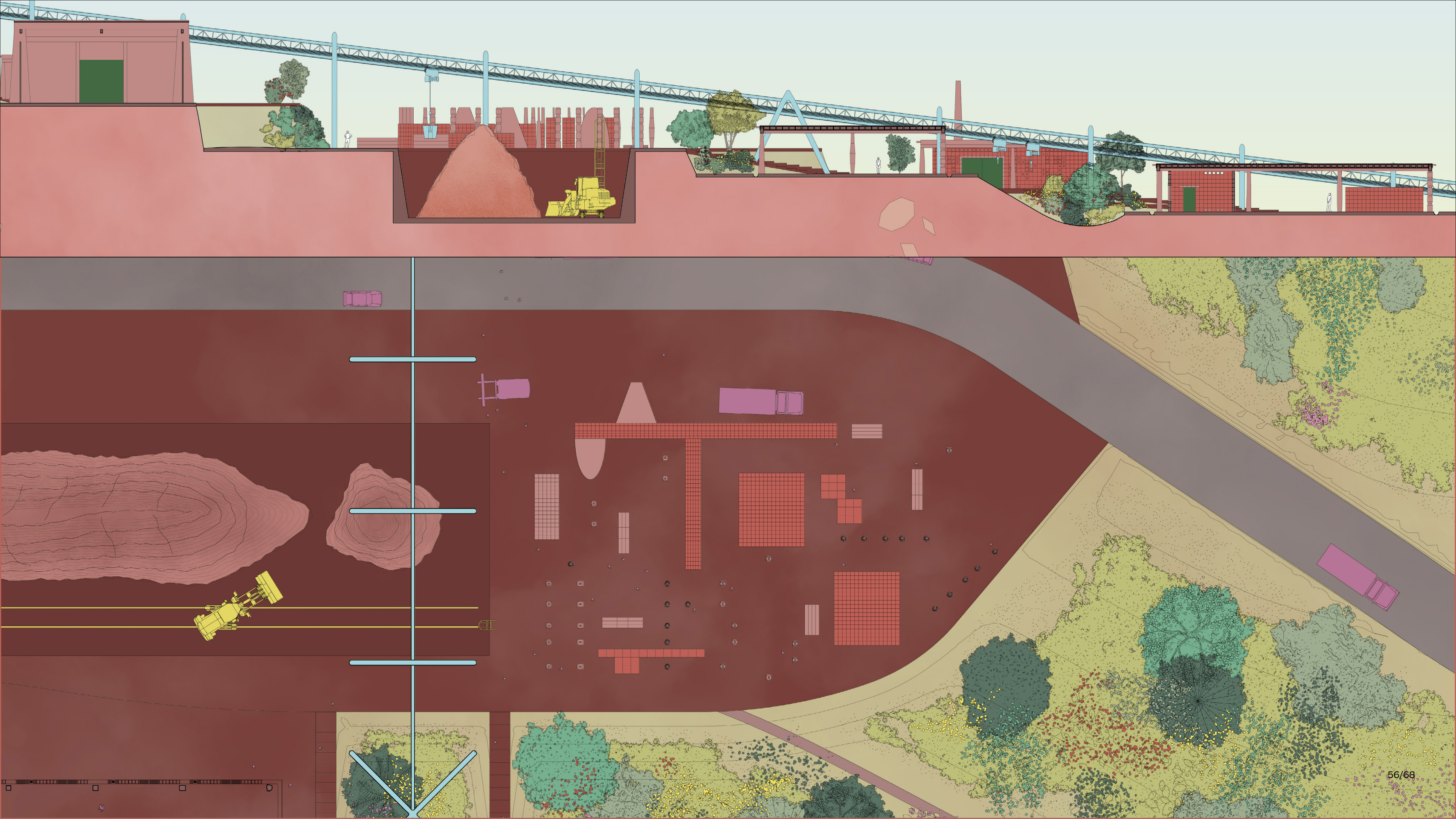




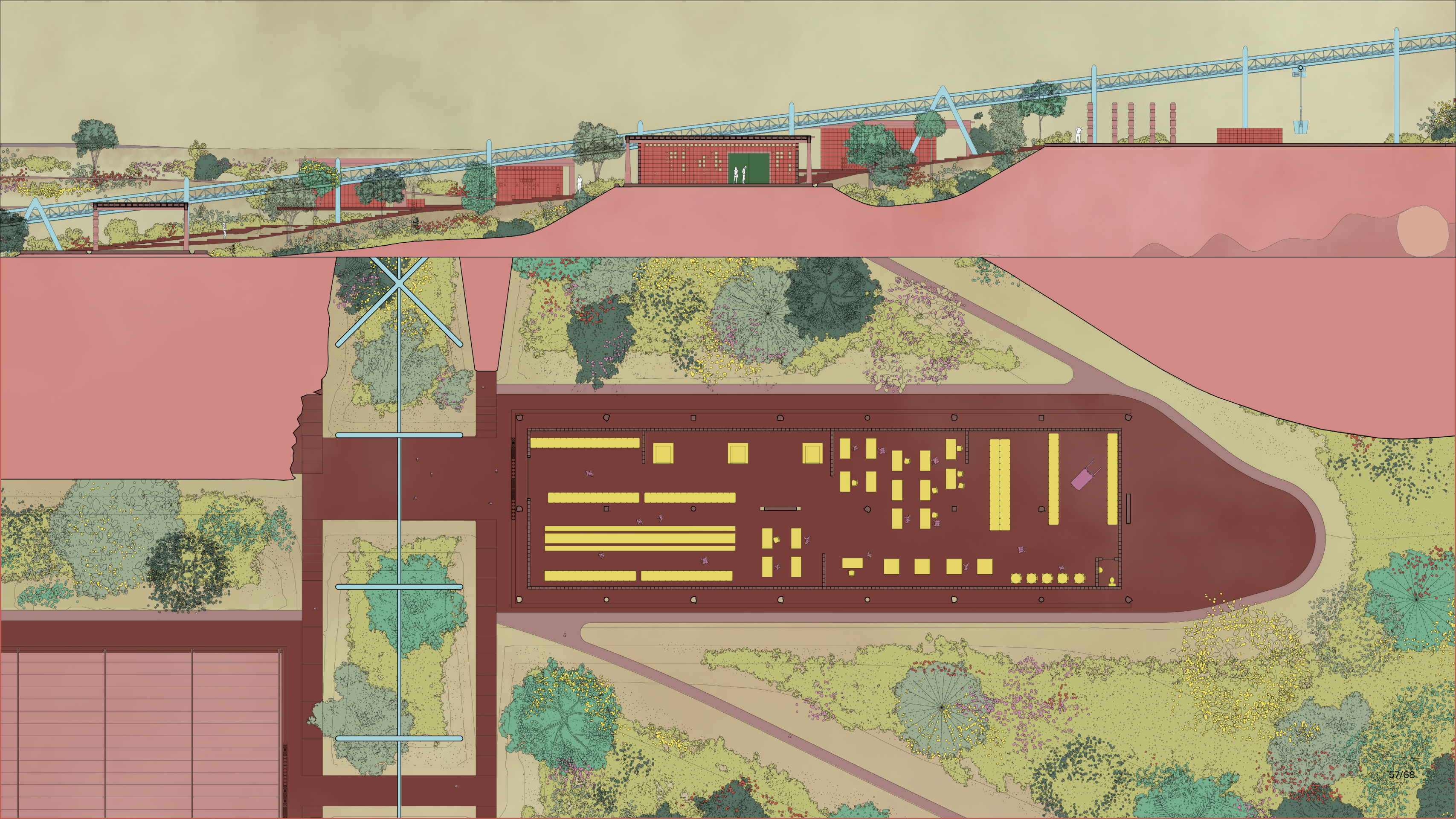




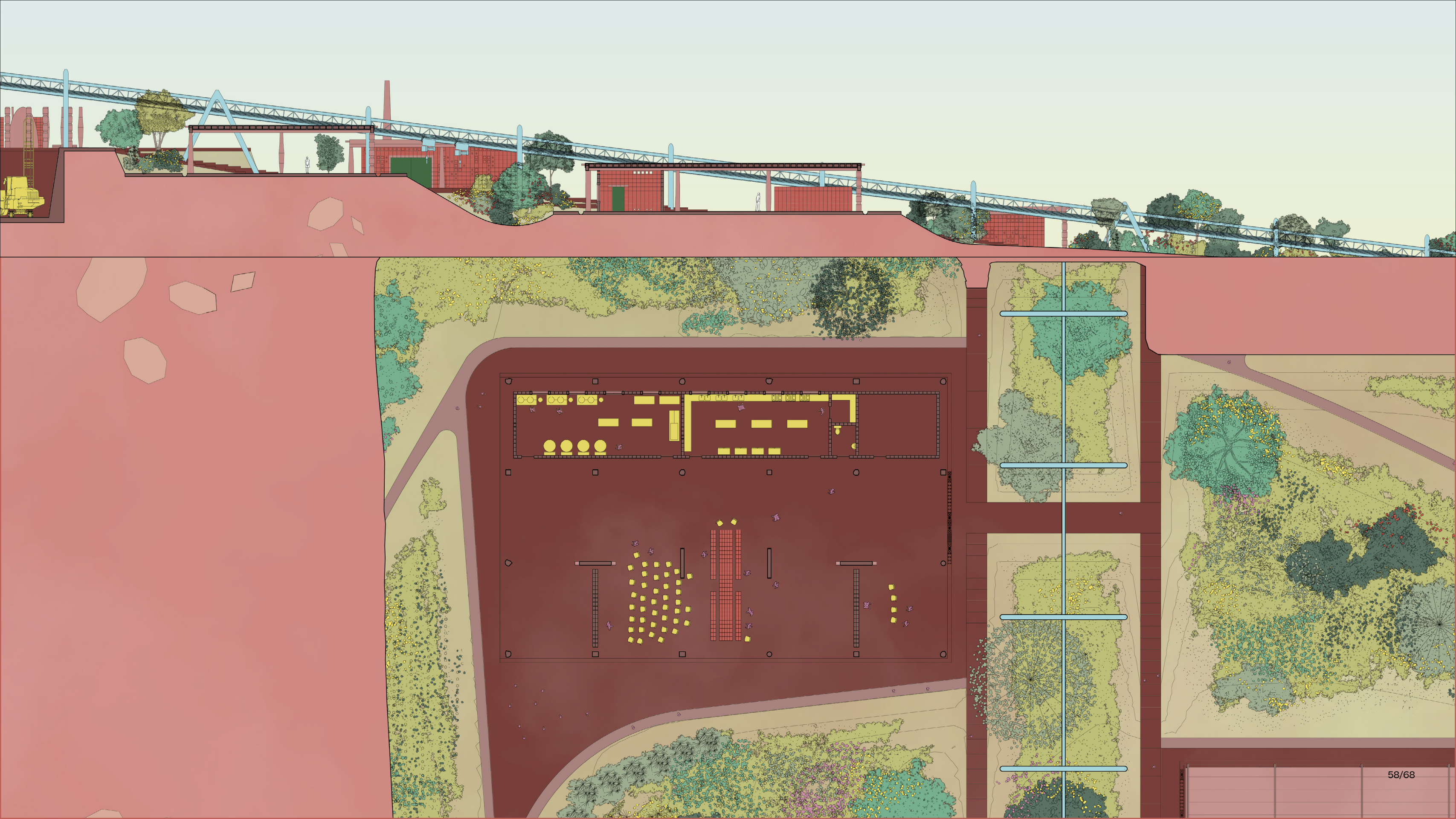








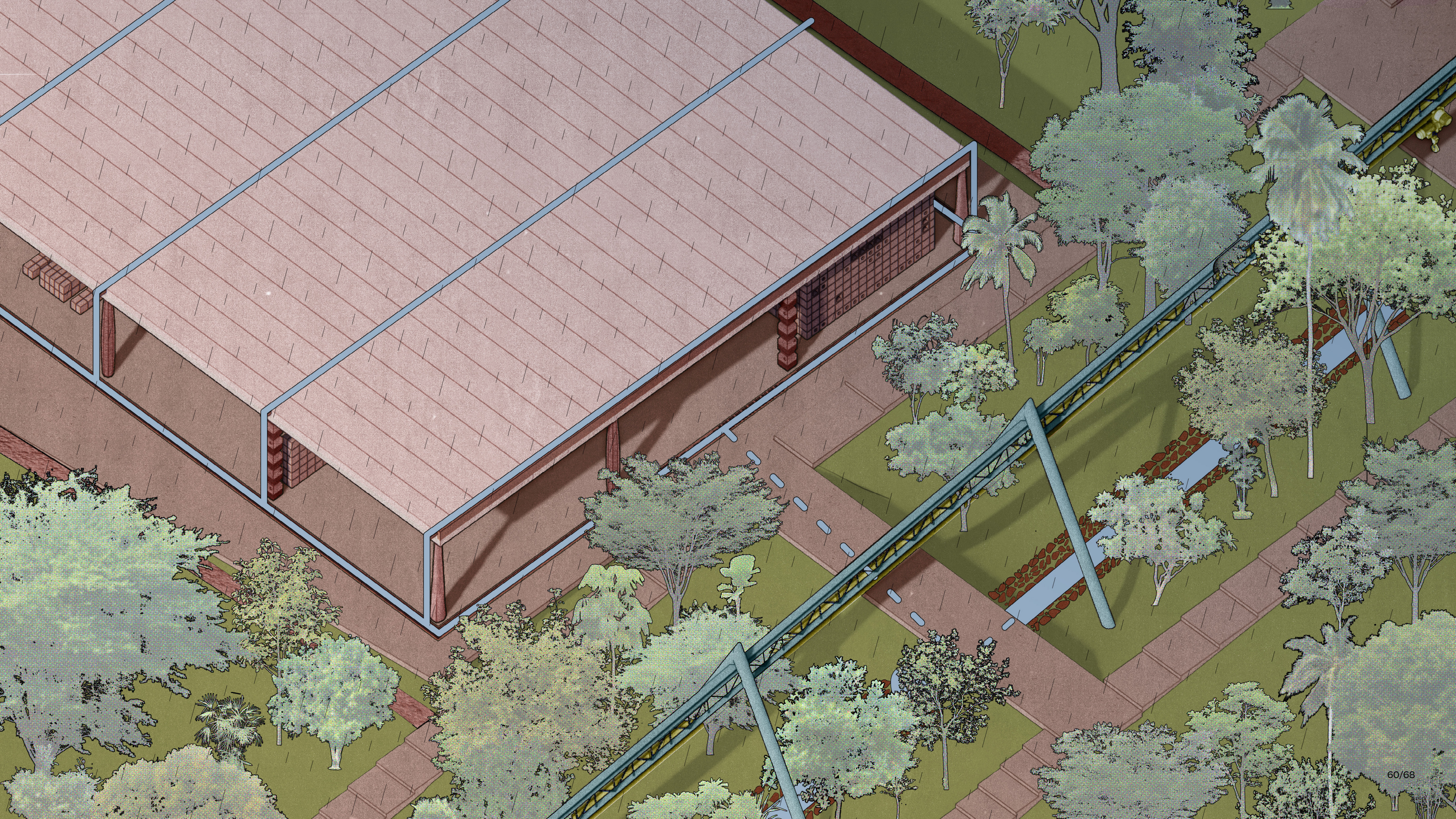








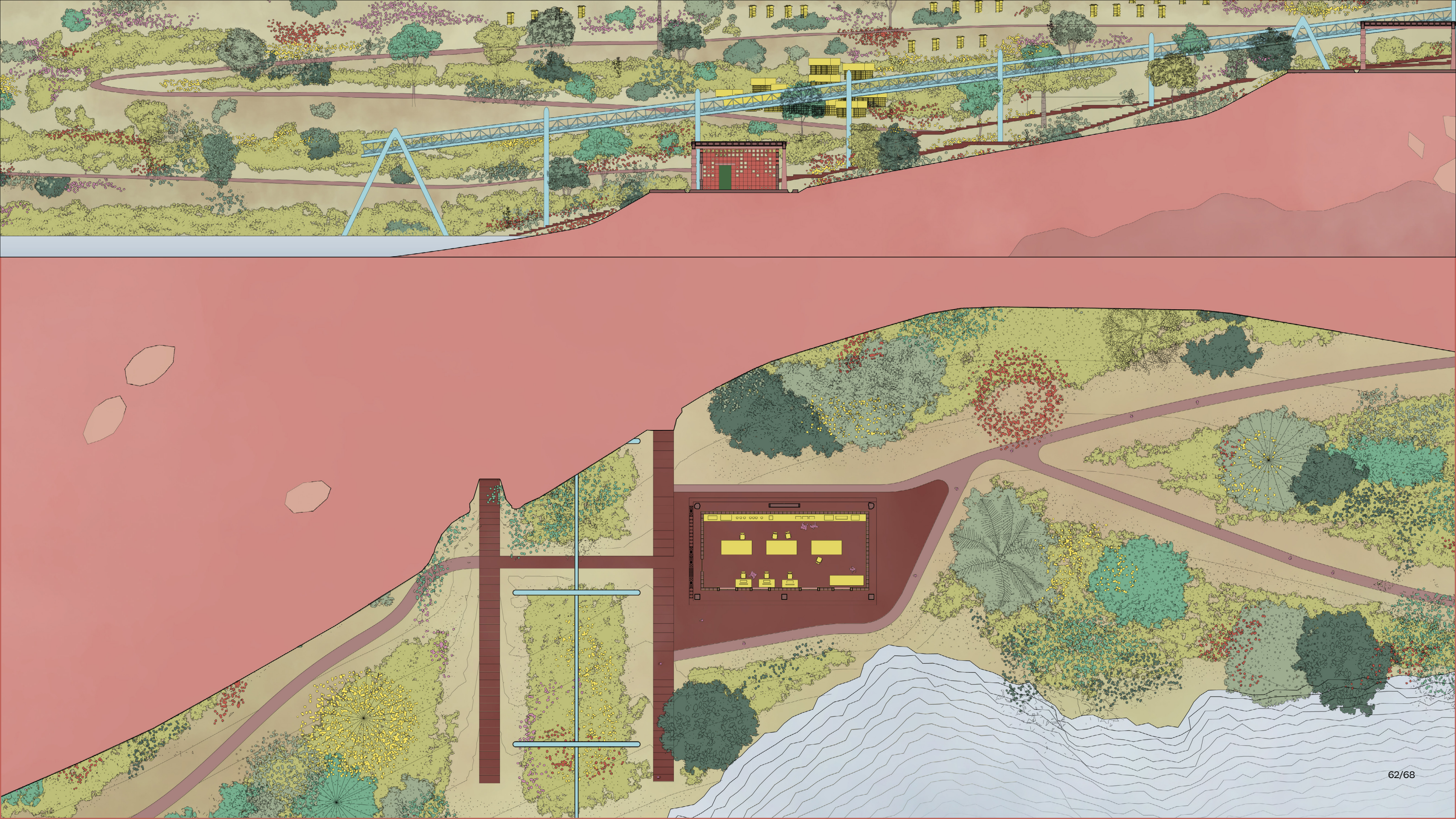




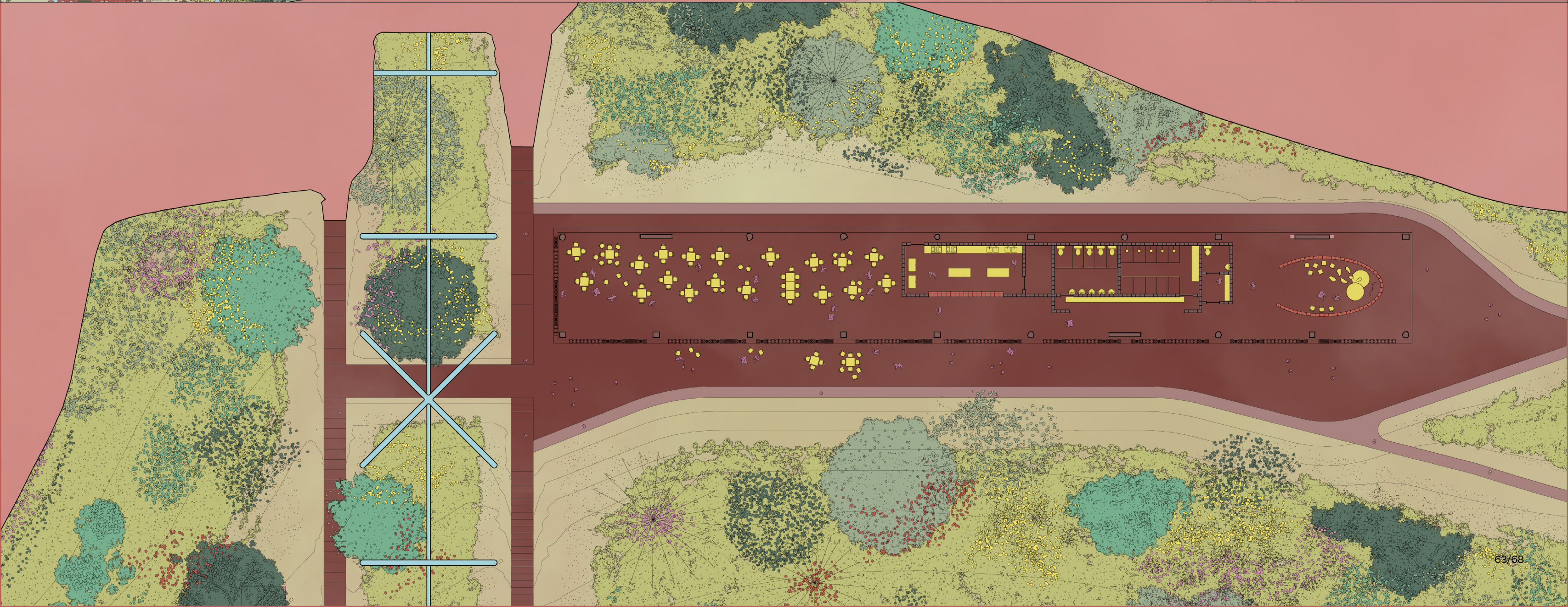
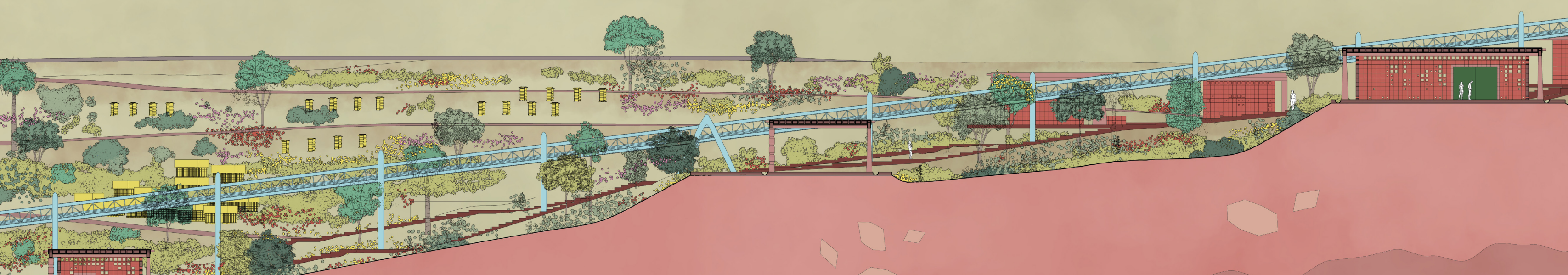






























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