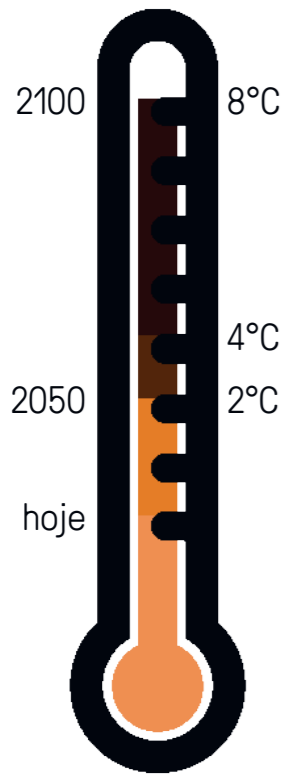
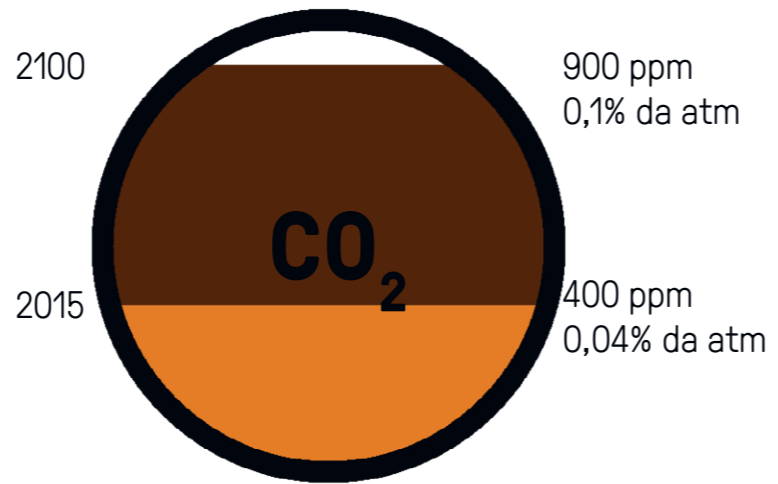


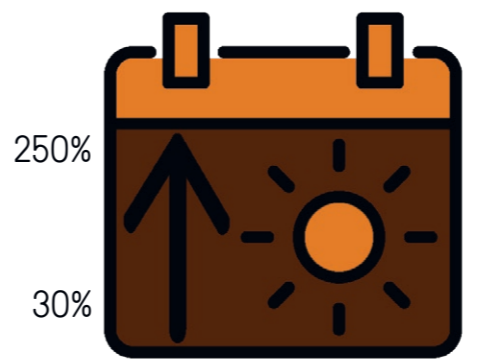
CENÁRIO temperatura



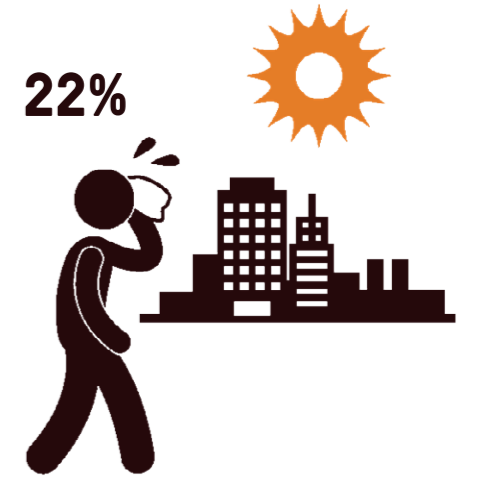
aumento da temperatura média global



aumento da concentração de gás carbônico



aumento do números de dias de calor intenso, especialmente nas médias latitudes



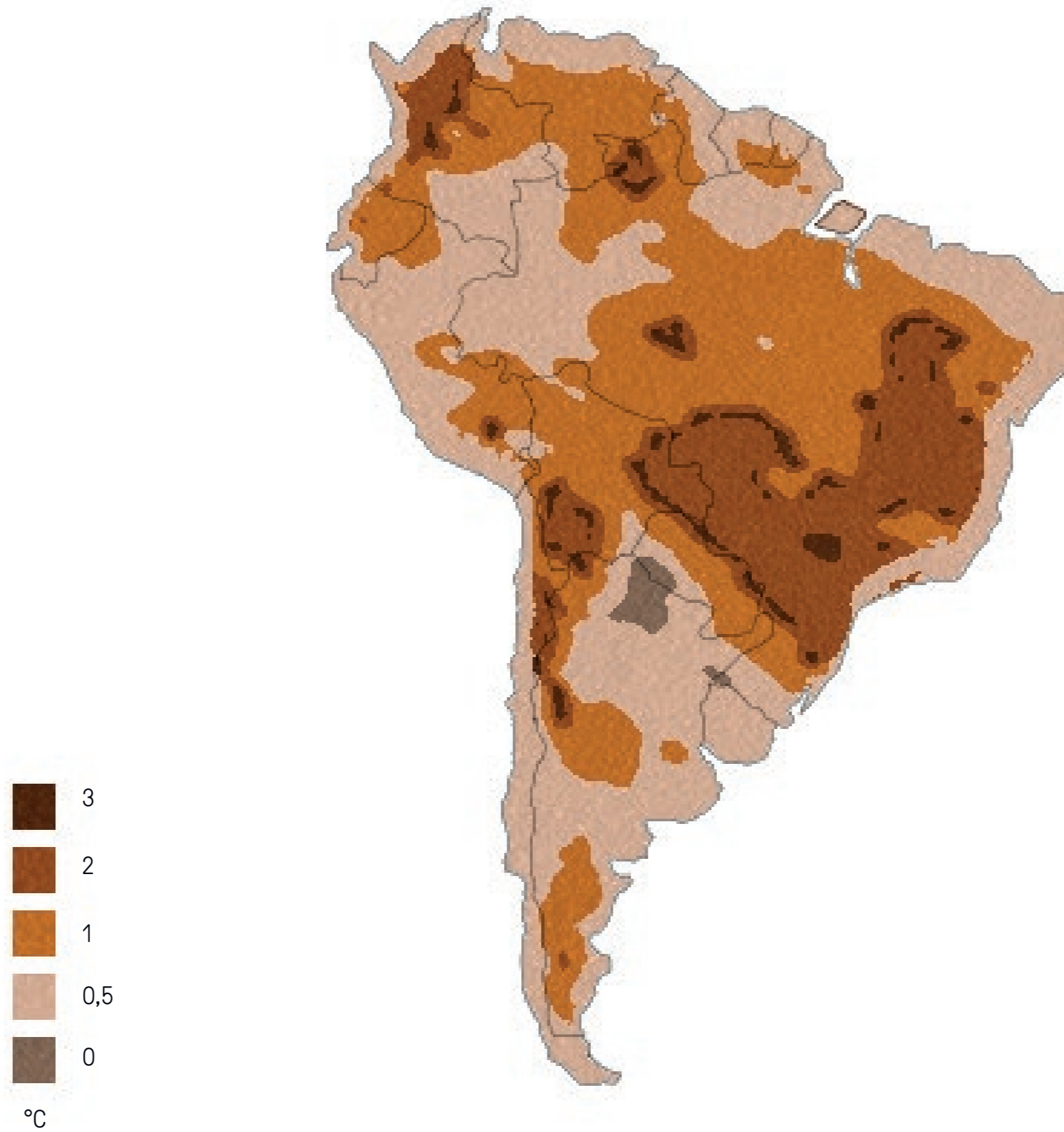
cidades atingirão temperaturas nunca experimentadas

FONTES
<https://www.terra.com.br/noticias/educacao/infograficos/mundo-100anos/>
<https://revistagalileu.globo.com/Ciencia/noticia/2015/06/como-sera-o-clima-da-terra-em-2100.html>
https://brasil.elpais.com/brasil/2014/05/20/sociedad/1400604766_206368.htm
<http://www.observatoriodoclima.eco.br/pais-podera-viver-drama-climatico-em-2040/>
<http://www.comciencia.br/pensando-o-amanha-as-alternativas-para-o-futuro-do-planeta-e-da-humanidade/>

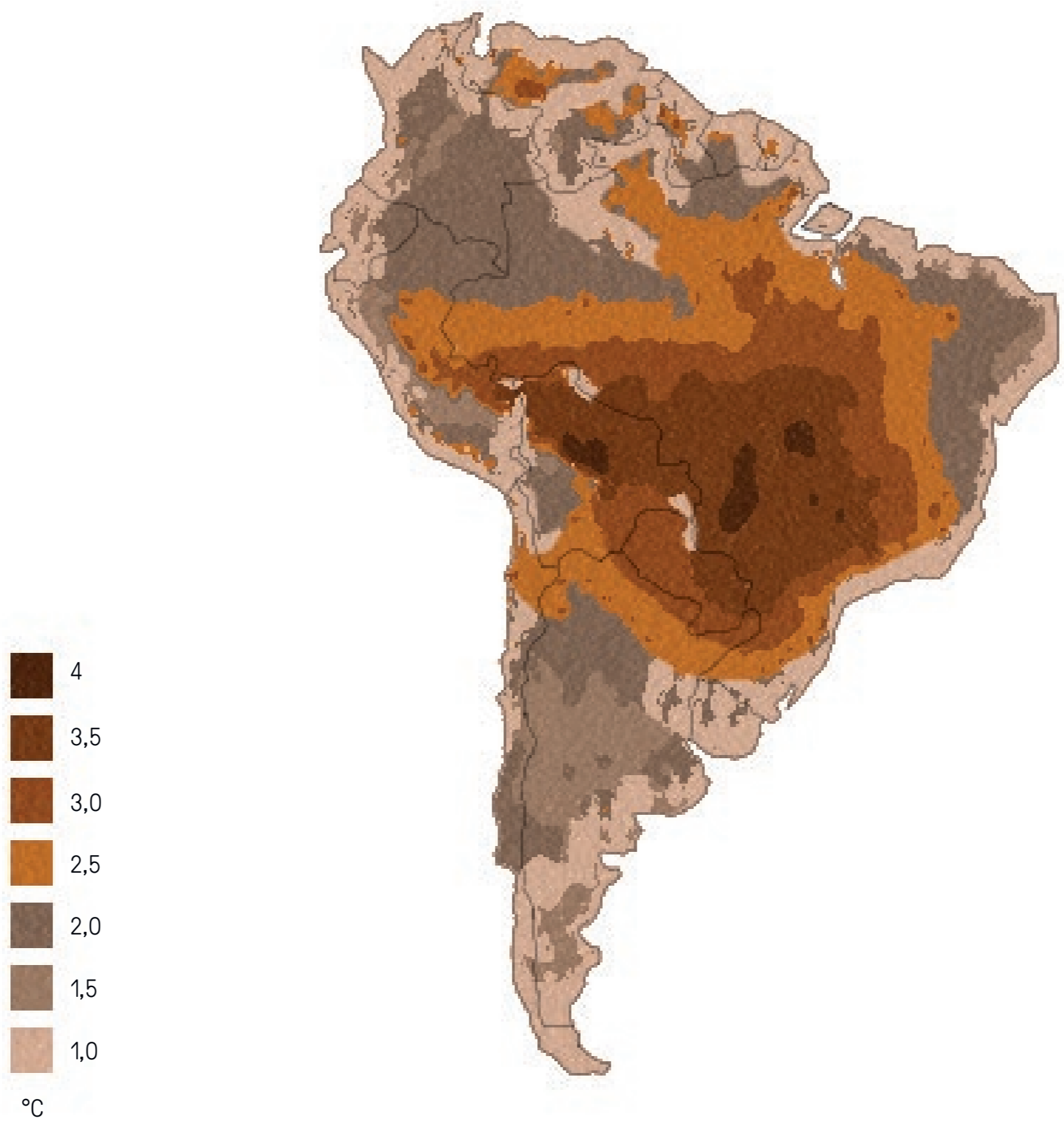
CENÁRIO

temperatura

média das temperaturas_2019



CENÁRIO
temperatura
média das temperaturas_2040



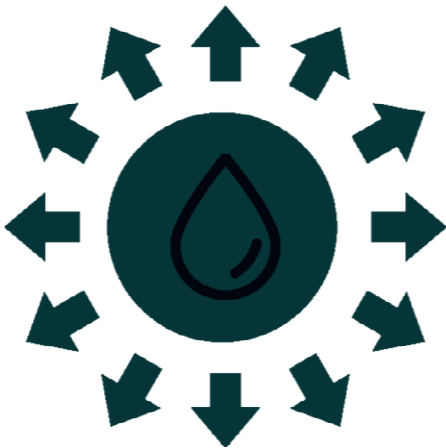
FONTE
<http://www.observatoriodoclima.eco.br/wp-content/uploads/2015/10/temps.png>

CENÁRIO

nível dos oceanos



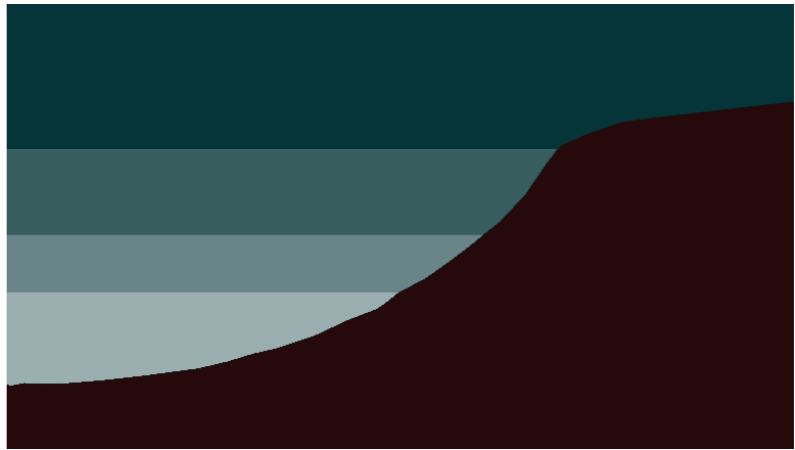
derretimento das geleiras e das massas de gelo na Groenlândia, Ártico e Antártida



expansão térmica da água



2100_60 cm a 1 m
2050_50 cm
desde 1990_20 cm



aumento do nível dos oceanos

FONTES
<https://www.terra.com.br/noticias/educacao/infograficos/mundo-100anos/>
https://brasil.elpais.com/brasil/2014/05/20/sociedad/1400604766_206368.html
https://exame.abril.com.br/negocios/dino_old/dados-cientificos-alertam-para-o-futuro-do-planeta-nos-proximos-anos-dino89078282131/

CENÁRIO

nível dos oceanos
derretimento das geleiras



CENÁRIO

centros urbanos



fuga da população rural para as cidades, devido a tecnificação do campo

milhões de pessoas fugindo de zonas atingidas pela seca

compactação das cidades

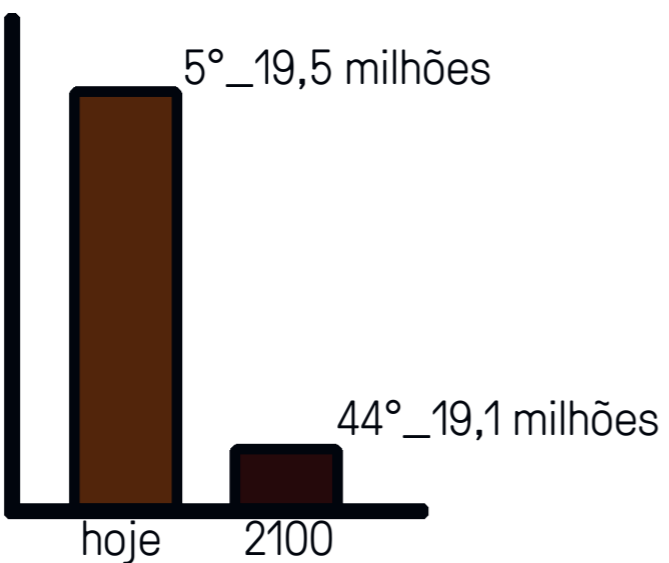
alta verticalização das cidades

cidades submersas

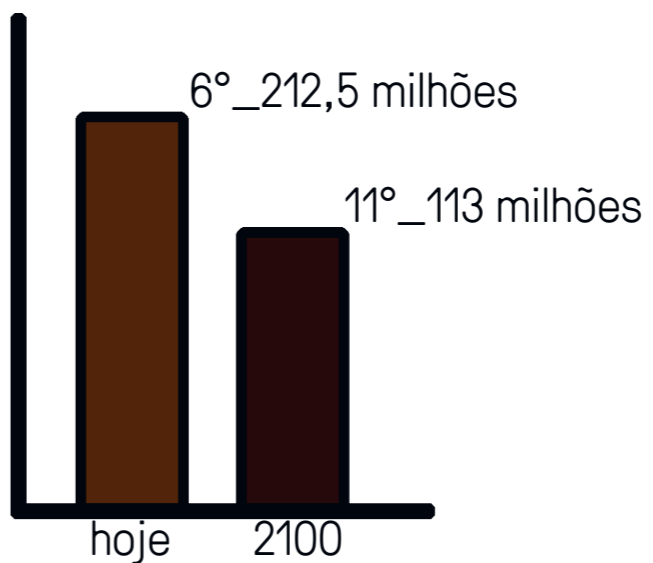
FONTES
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<https://www.tecmundo.com.br/futuro/98550-futuro-2116-prepare-ver-projecoes-impressionantes.htm>
https://brasil.elpais.com/brasil/2014/05/20/sociedad/1400604766_206368.html
<https://www.bbc.com/portuguese/internacional-45177144>

CENÁRIO

centros urbanos_população



São Paulo



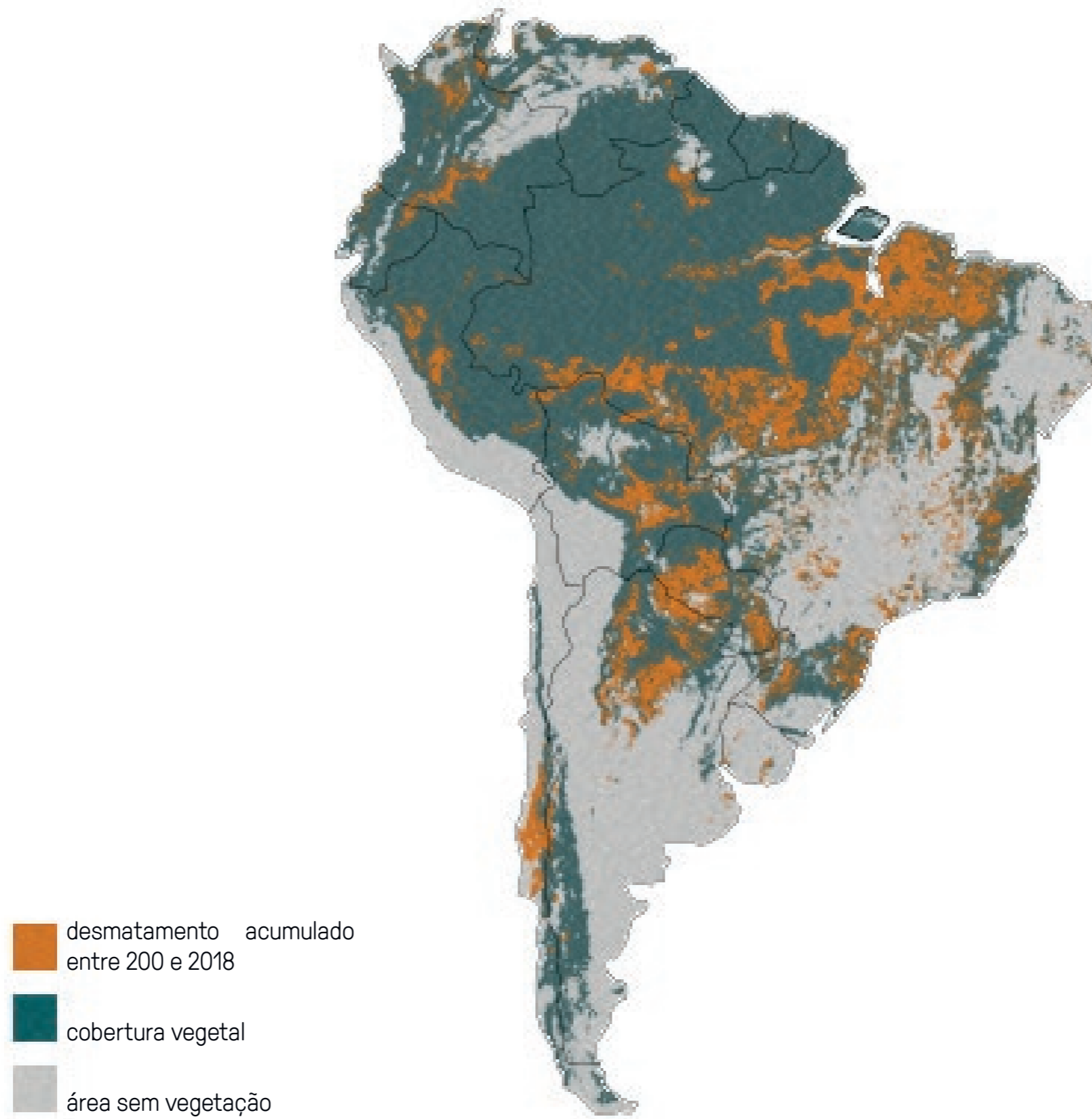
Brasil

FONTES
<https://www.bbc.com/portuguese/internacional-45177144>
<https://g1.globo.com/mundo/noticia/2019/06/18/brasil-caira-de-6o-maior-pais-do-mundo-em-populacao-para-11o-em-2100.ghtml>

CENÁRIO

desertificação

desmatamento Amazônia



CENÁRIO
desertificação
desmatamento Amazônia



desmatamento
acelerado pelo efeito
combinado das secas
prolongadas e dos
incêndios



substituição
gradual da selva
tropical pela
savana

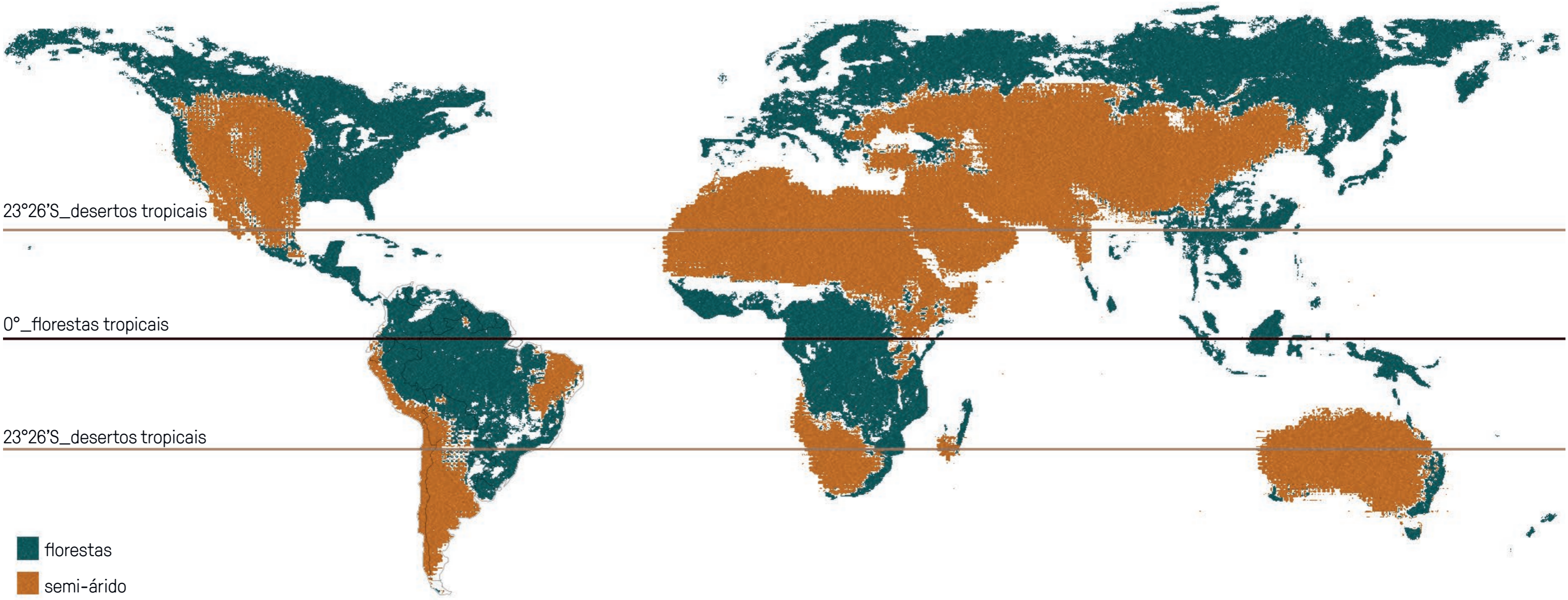


perda da biodiversidade, extinção de
espécies, e mudanças significativas na
disponibilidade de água doce

CENÁRIO

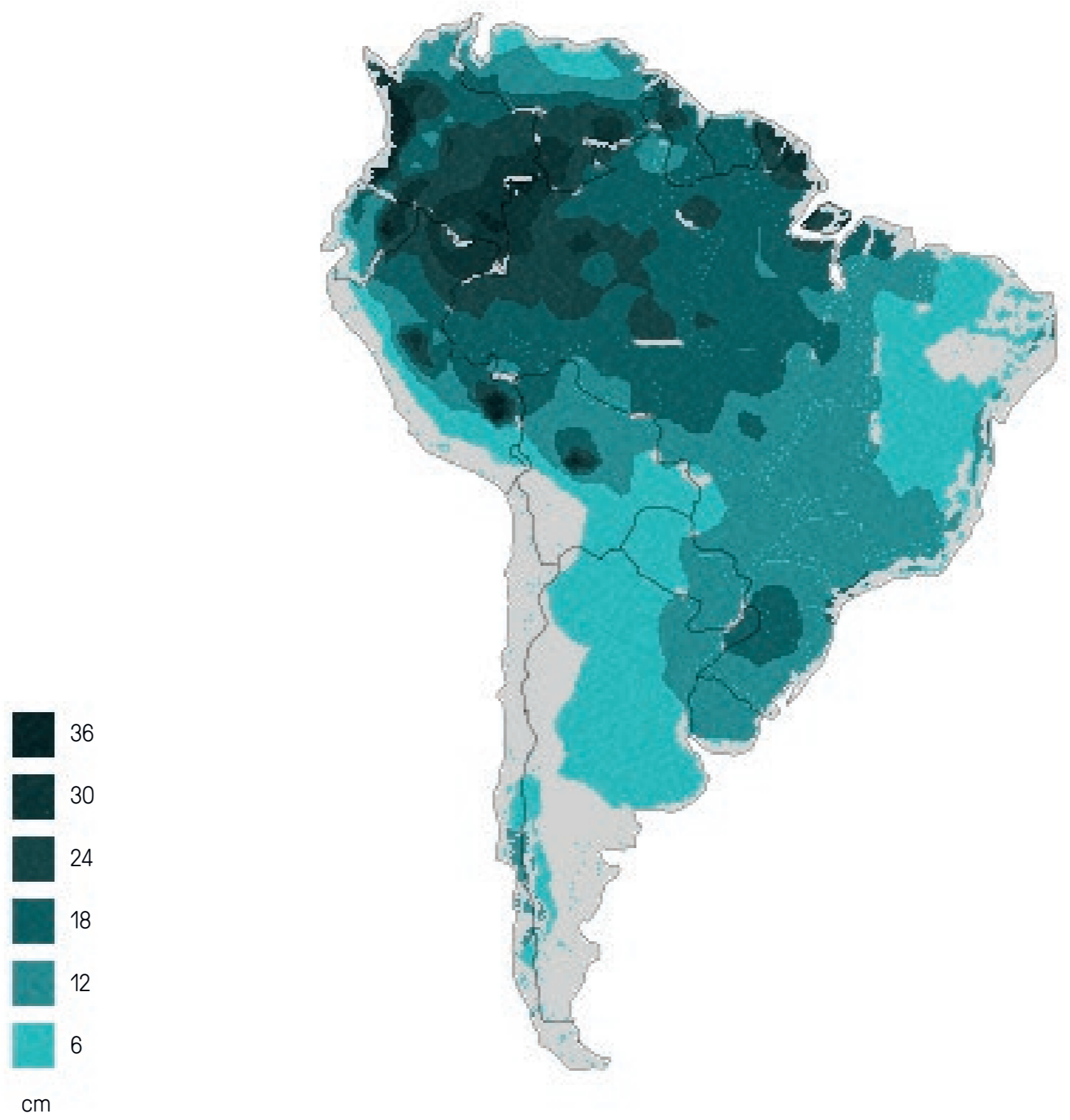
desertificação

desertos mundiais_atual



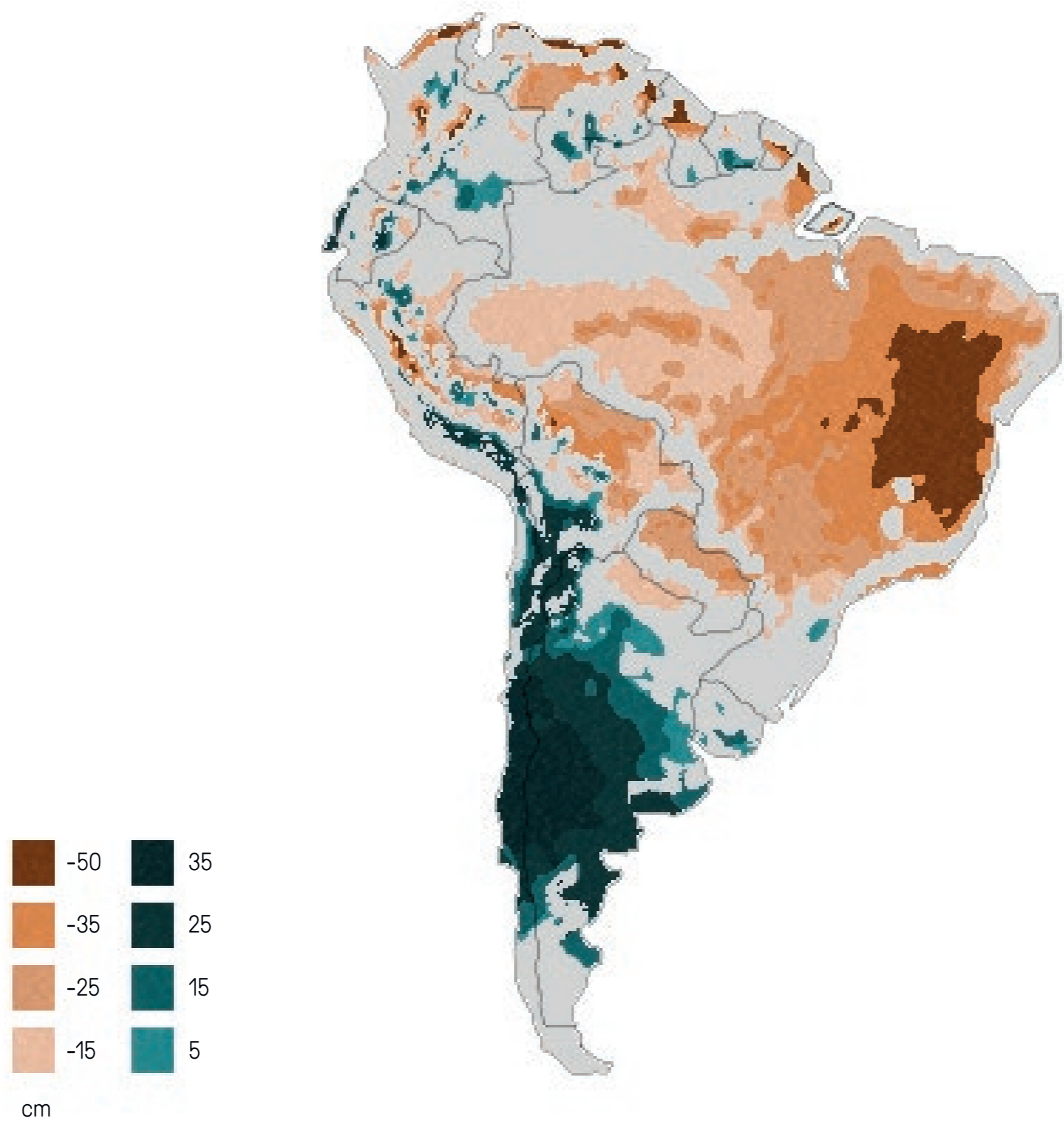
FONTE
https://www.archdaily.com.br/br/913502/recortes-cartograficos-nil-muros-de-ar/5c912526284dd1e494000ae8-recortes-cartograficos-nil-muros-de-ar-cobertura-da-terra-nil-recorte-do-mapa-da-exposicao-paisagem-fluida?next_project=no

CENÁRIO
desertificação
média de chuvas_atual



FONTE
https://www.researchgate.net/figure/Figura-1-Precipitacao-media-anual-mm-na-America-do-Sul-1980-2010-GPCC-sd_fig1_314714412

CENÁRIO desertificação média de chuvas_2040

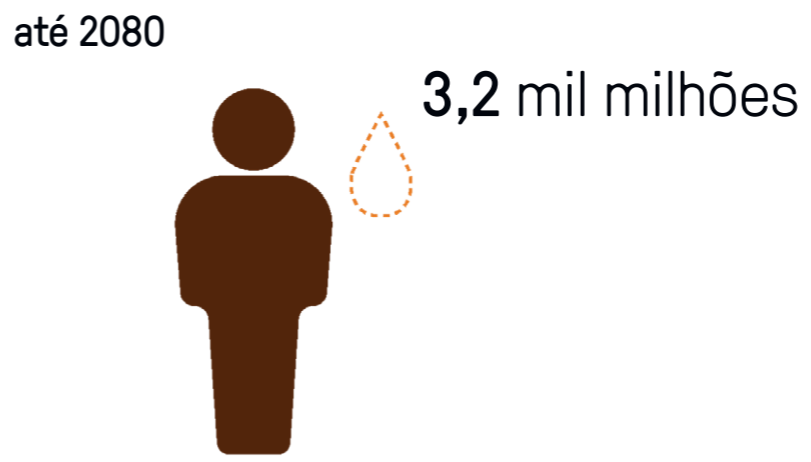


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<http://www.observatoriodoclima.eco.br/pais-podera-viver-drama-climatico-em-2040/>

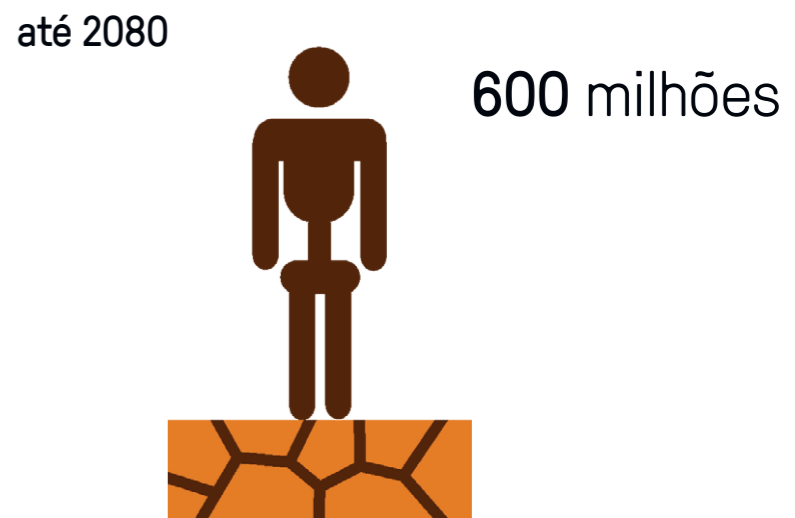
CENÁRIO desertificação



redução na vazão dos rios, de 10 a 30%



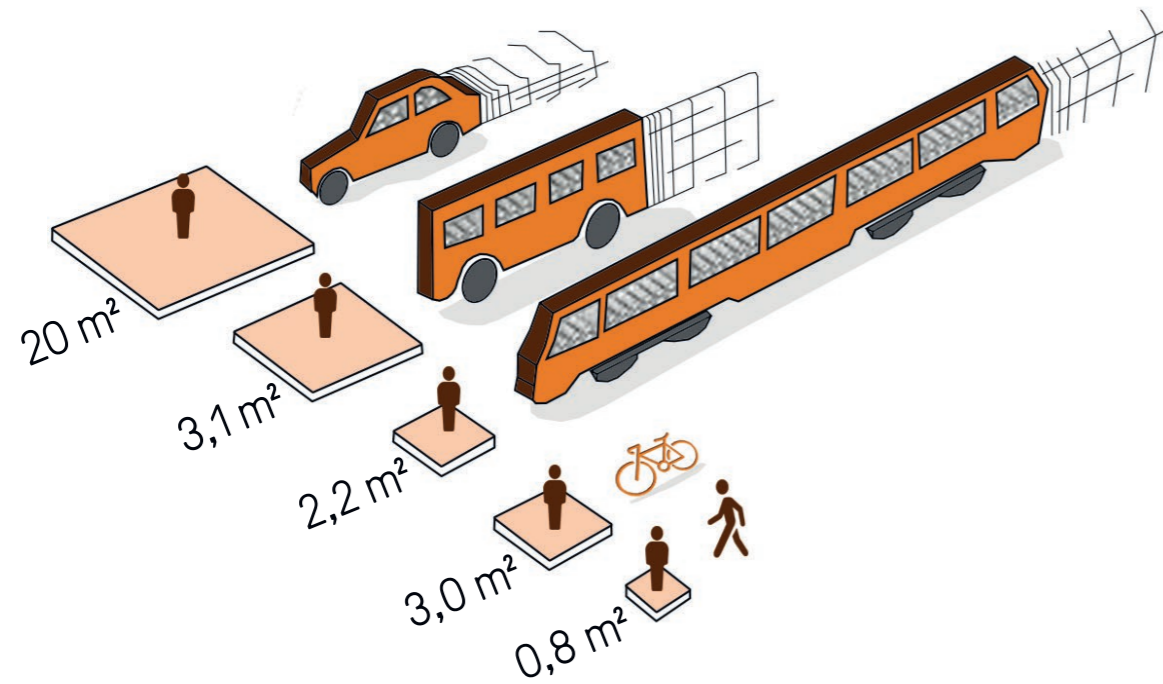
pessoas expostas a uma severa escassez de água



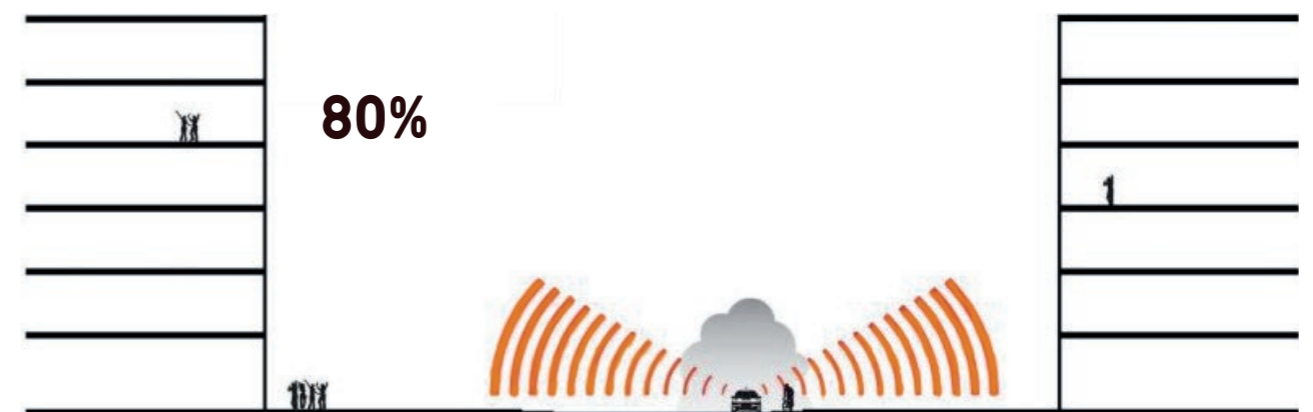
pessoas expostas à fome por causa das secas, e da degradação e salinização do solo.

FONTE
<http://www.observatoriodoclima.eco.br/pais-podera-viver-drama-climatico-em-2040/>
https://exame.abril.com.br/negocios/dino_old/dados-cientificos-alertam-para-o-futuro-do-planeta-nos-proximos-anos-dino89078282131/

CENÁRIO mobilidade_atual



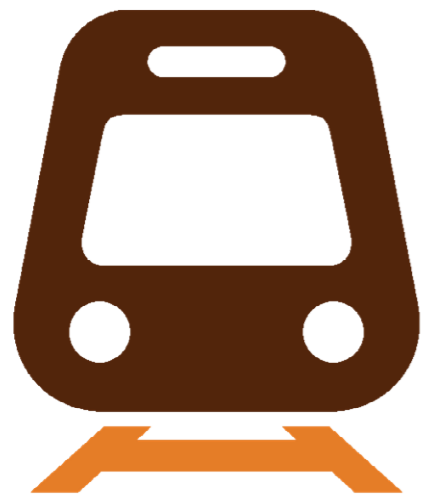
espaço individual ocupado em modais distintos



ruídos sonoros causados pelo carro

CENÁRIO

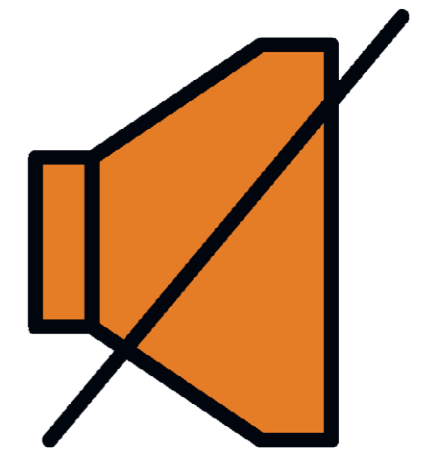
mobilidade_futuro



predominância de
veículos coletivos

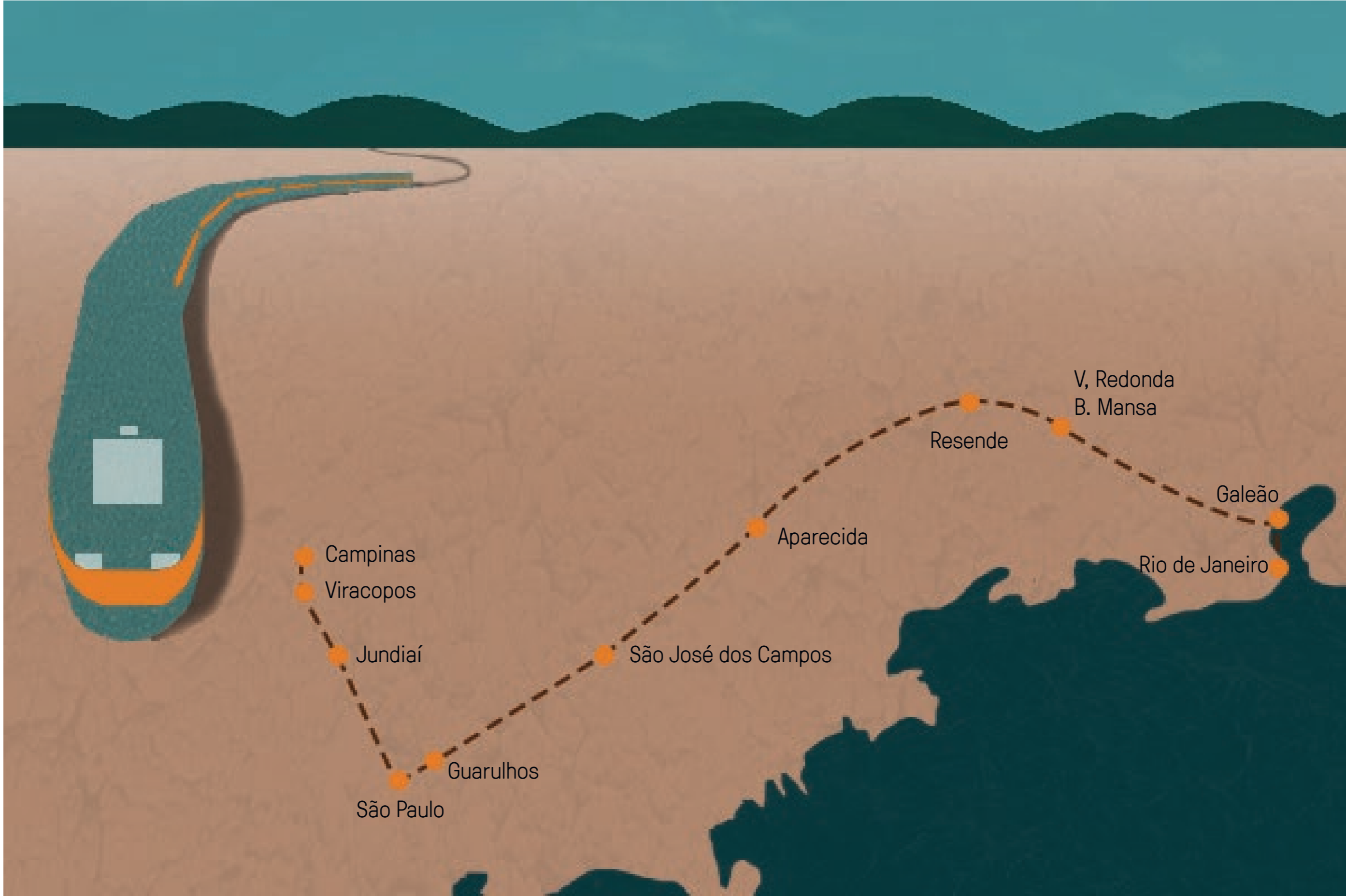


movidos à energia
limpa



mais silenciosos

CENÁRIO mobilidade_TAV



FONTE
<https://www.metroptm.com.br/esquecido-projeto-do-trem-bala-entre-rio-e-sao-paulo-volta-a-ser-cogitado/>

CENÁRIO tecnologias



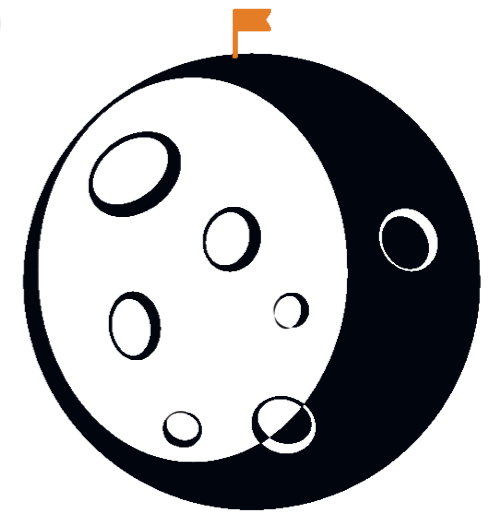
Melhora exponencial
da tecnologia

2025



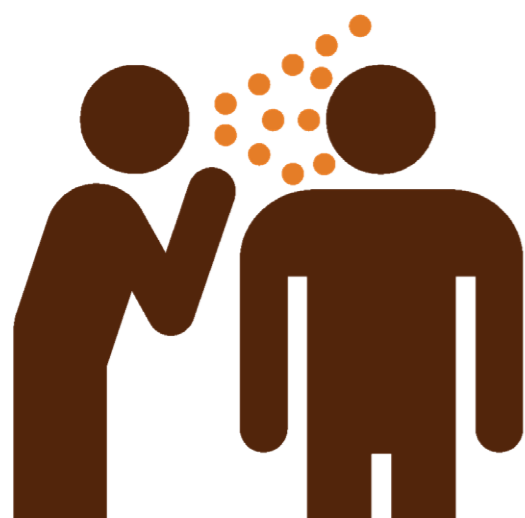
chegada a Marte

2040



construir uma base lunar

CENÁRIO desastres_2040



aumento de disseminação de doenças infecciosas endêmicas, de acordo com as condições climáticas



aumento de eventos climáticos extremos como tempestades



inundações, afogamentos, desabamentos, aglomerações, entre outros.

CENÁRIO



Google Earth
Imagem © 2020 Maxar Technologies
Imagem Aerial © Copernicus

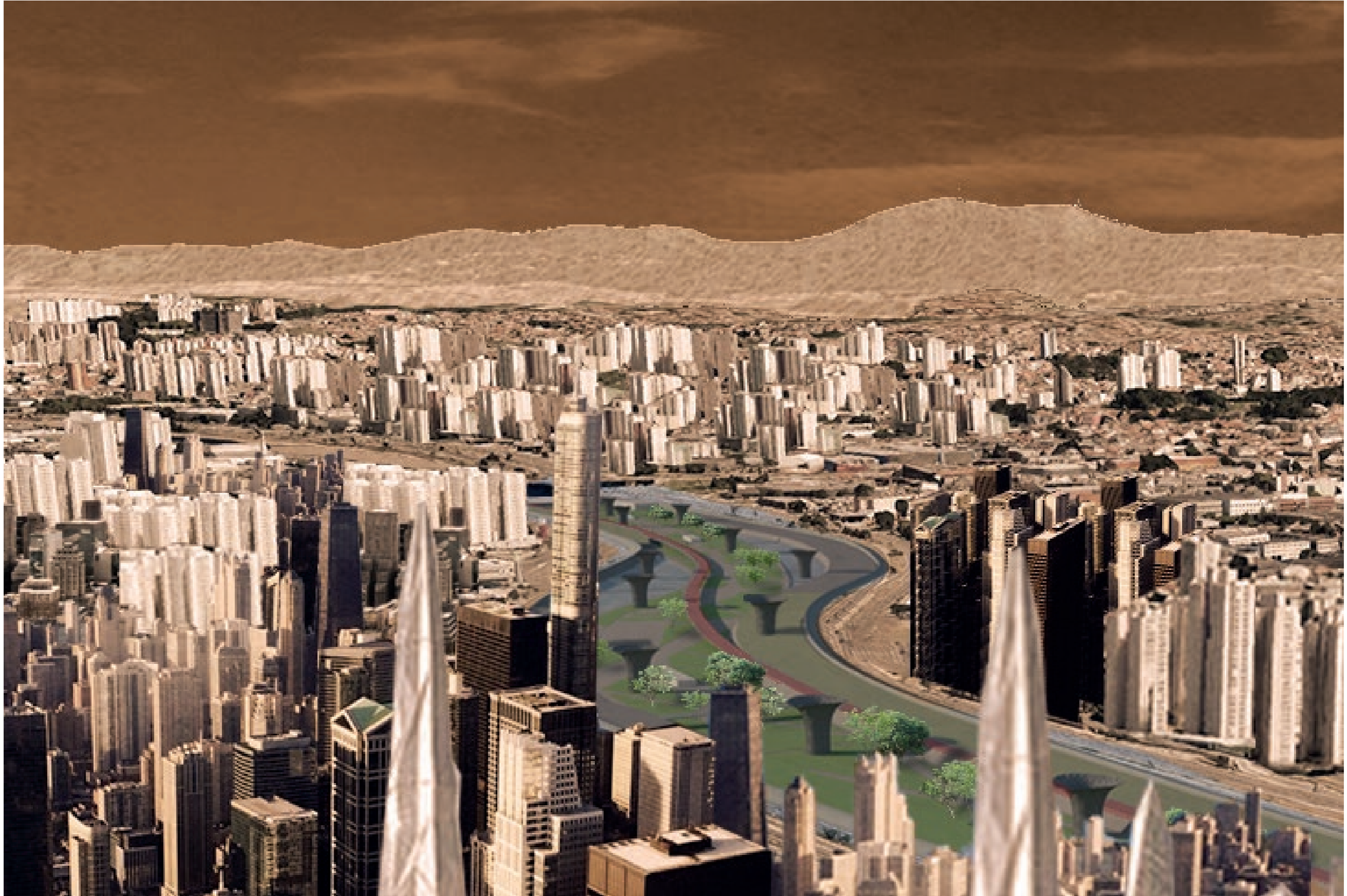
CENÁRIO



CENÁRIO
recorte



PROJETO
implantação_sem cobertura

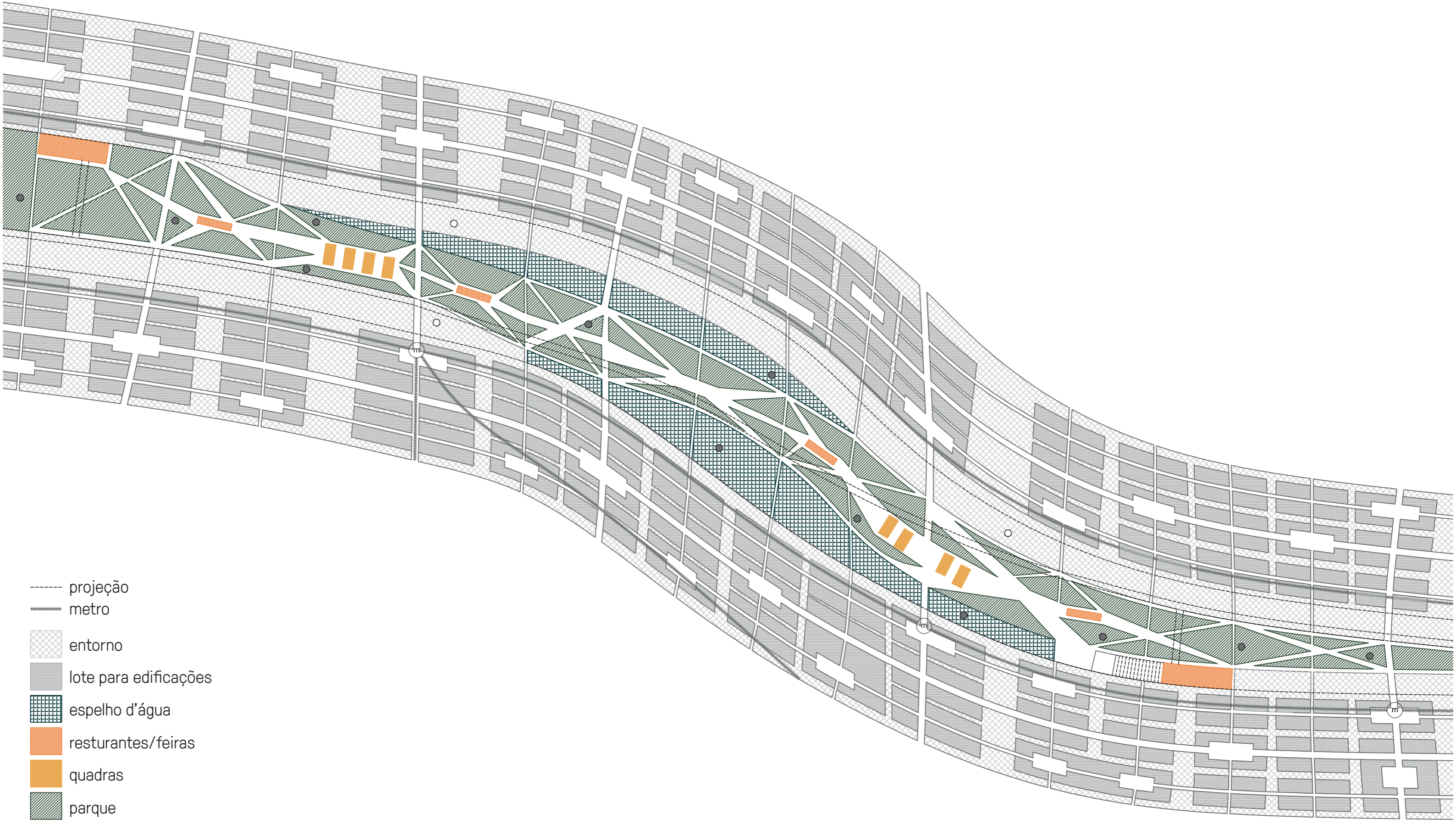


PROJETO
implantação_com cobertura

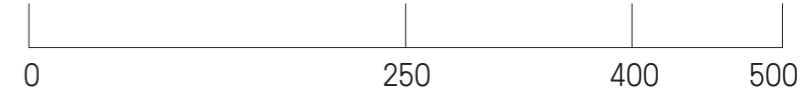


PROJETO

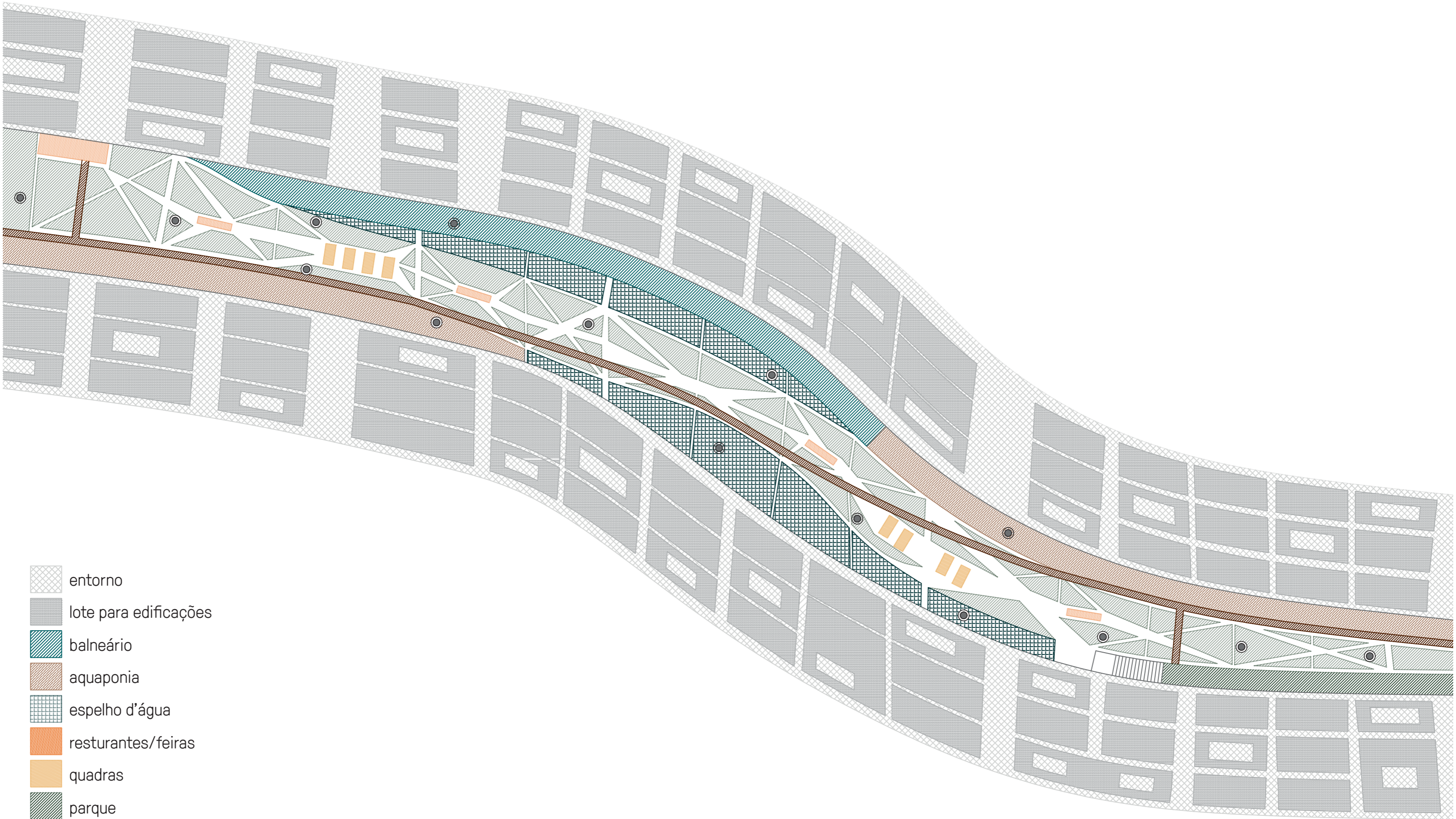
planta nível -5



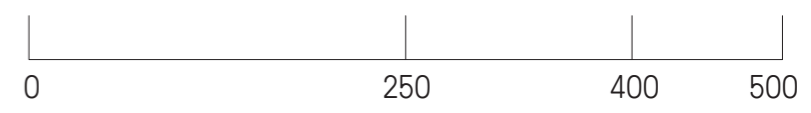
- projeção
- metro
- entorno
- lote para edificações
- espelho d'água
- resturantes/feiras
- quadras
- parque



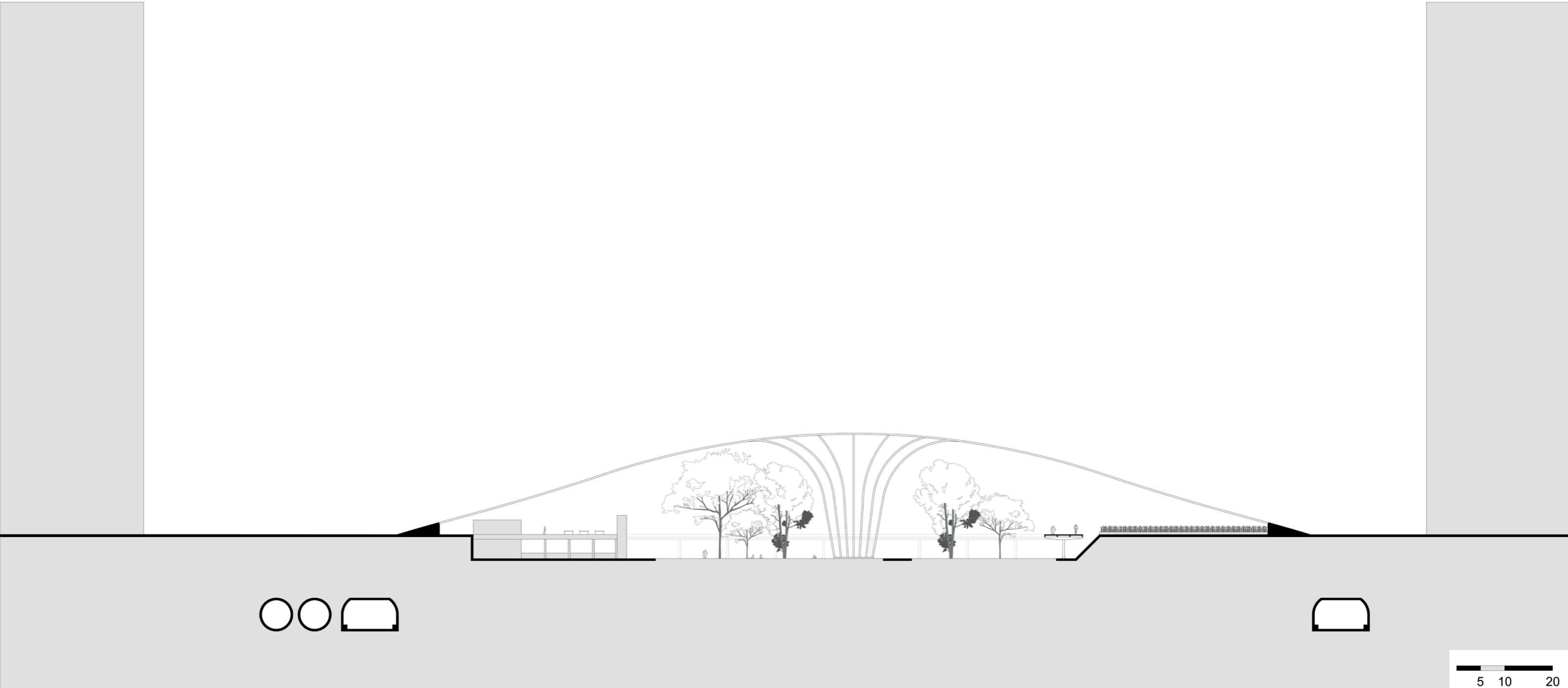
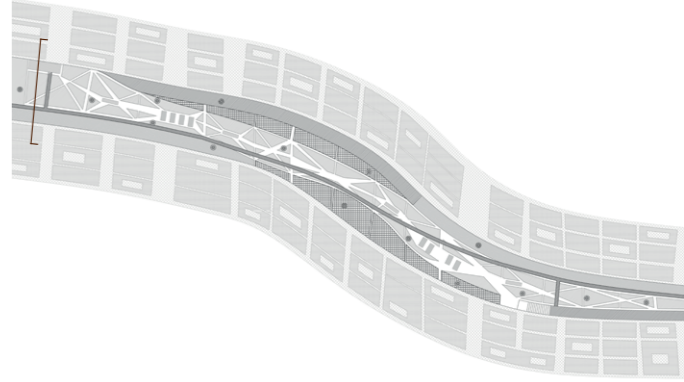
PROJETO planta nível 0



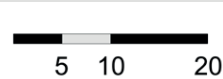
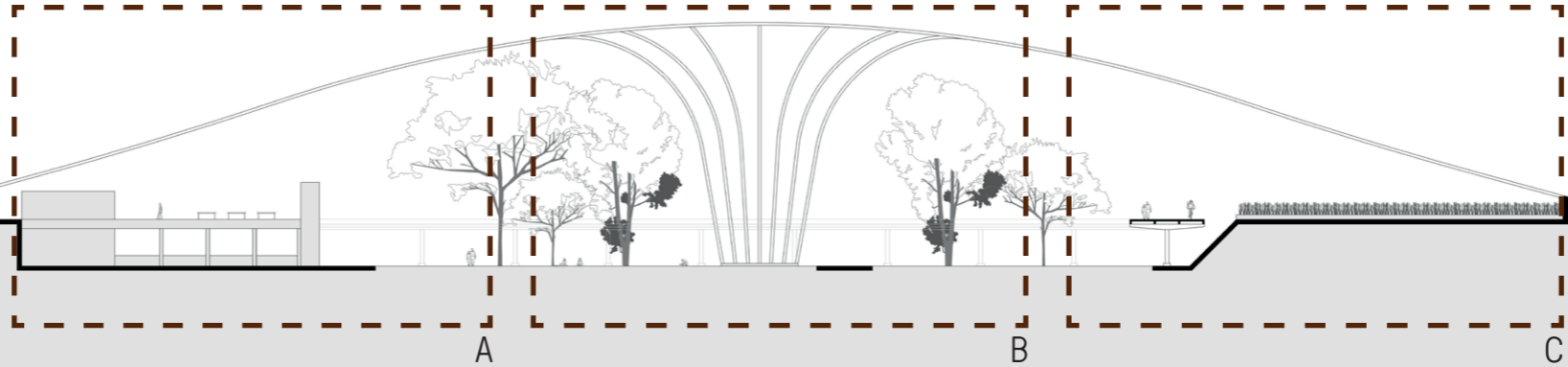
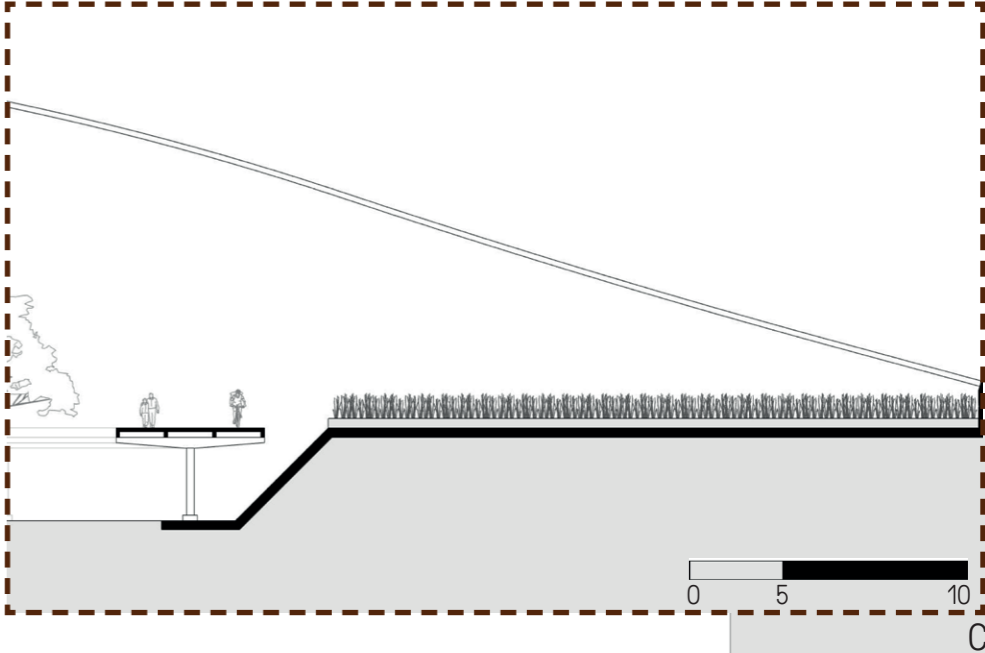
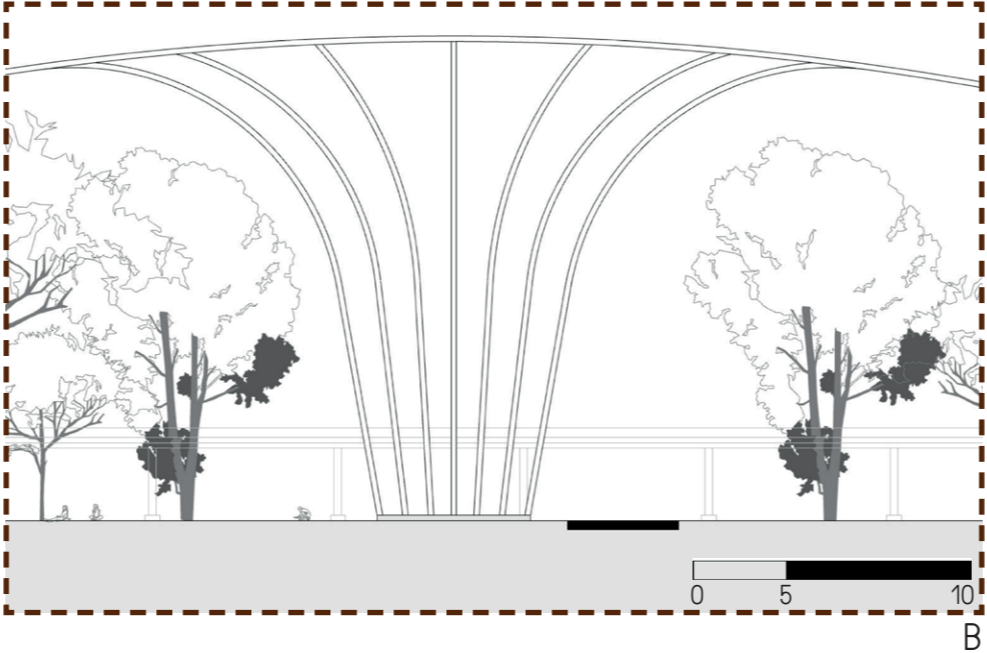
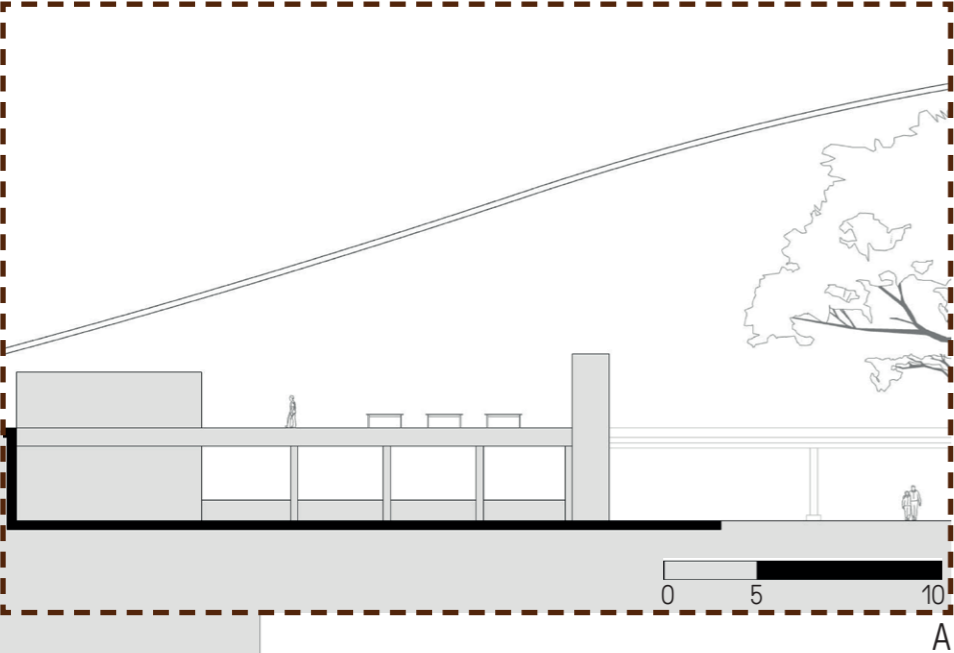
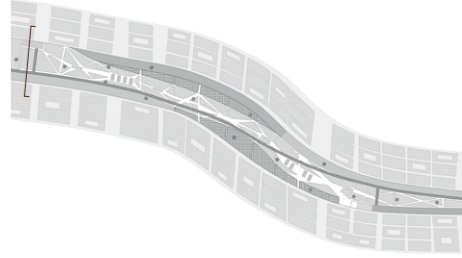
- entorno
- lote para edificações
- balneário
- aquaponia
- espelho d'água
- resturantes/feiras
- quadras
- parque



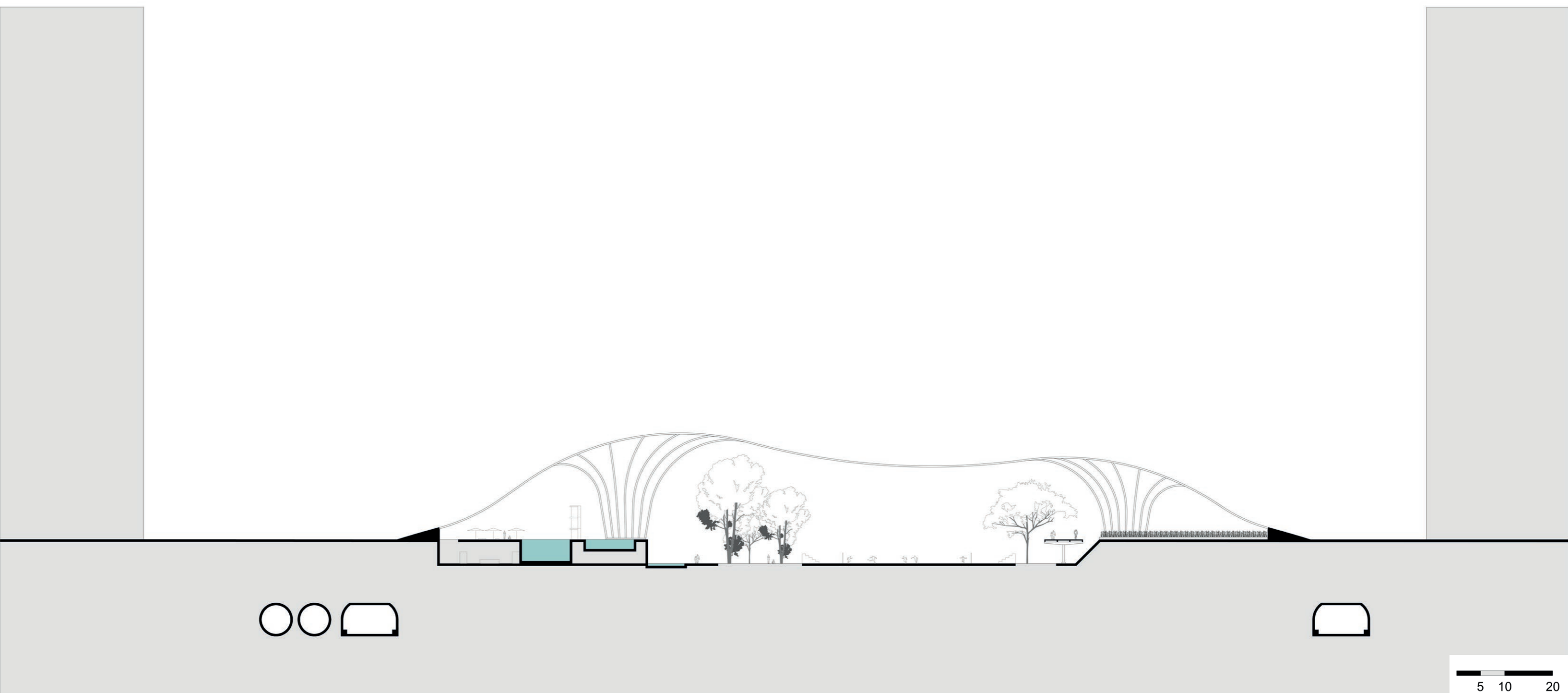
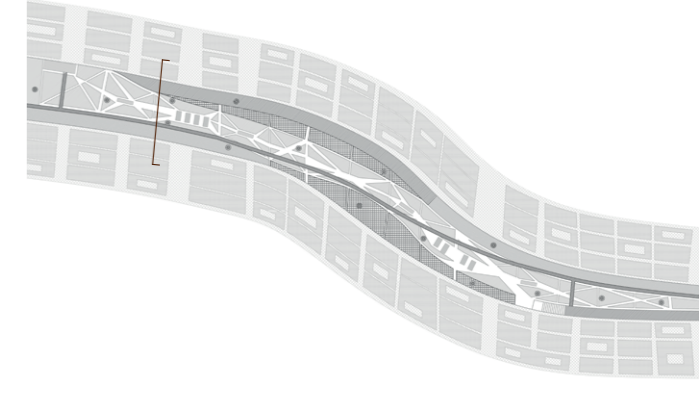
PROJETO
corte_1



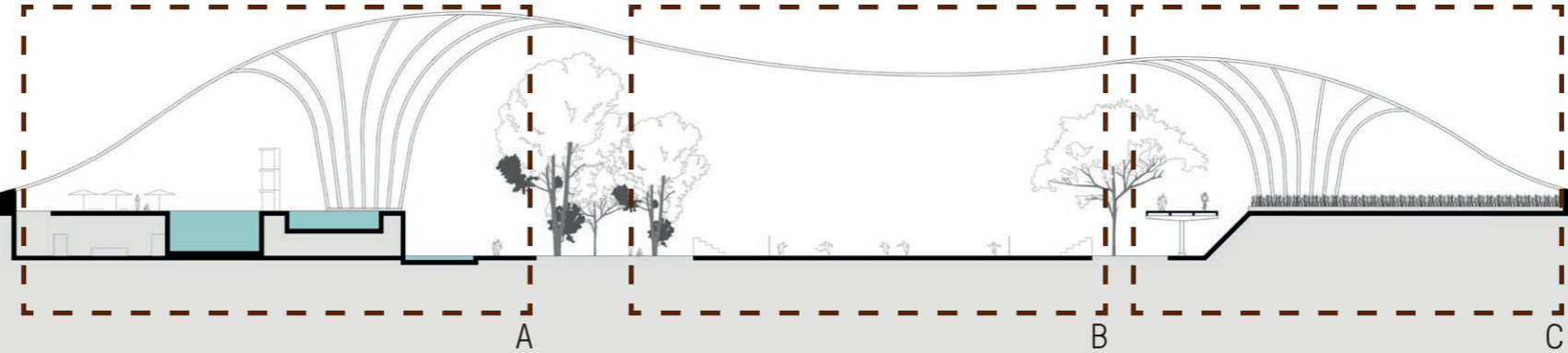
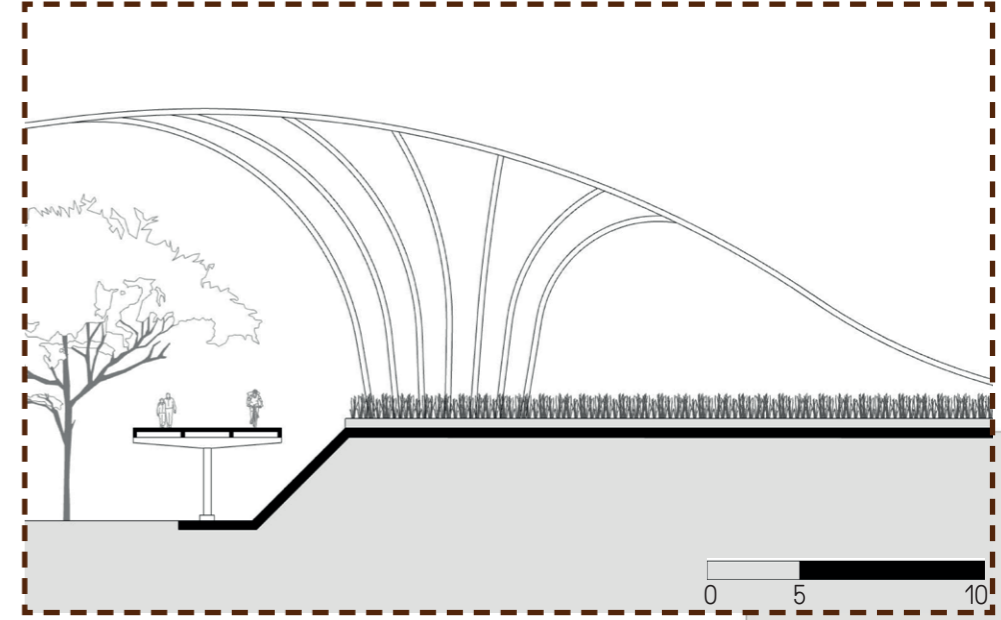
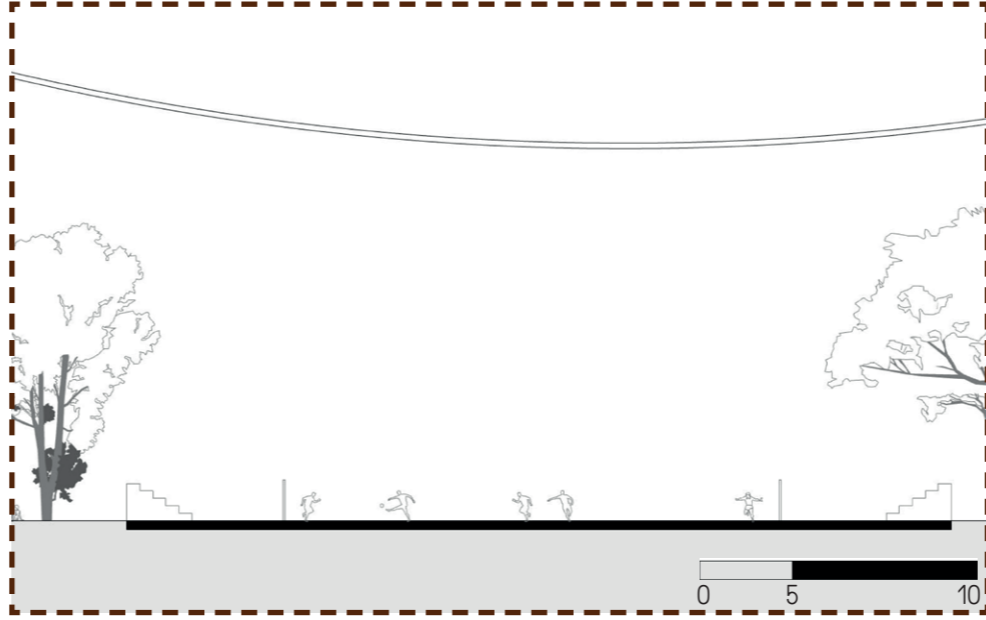
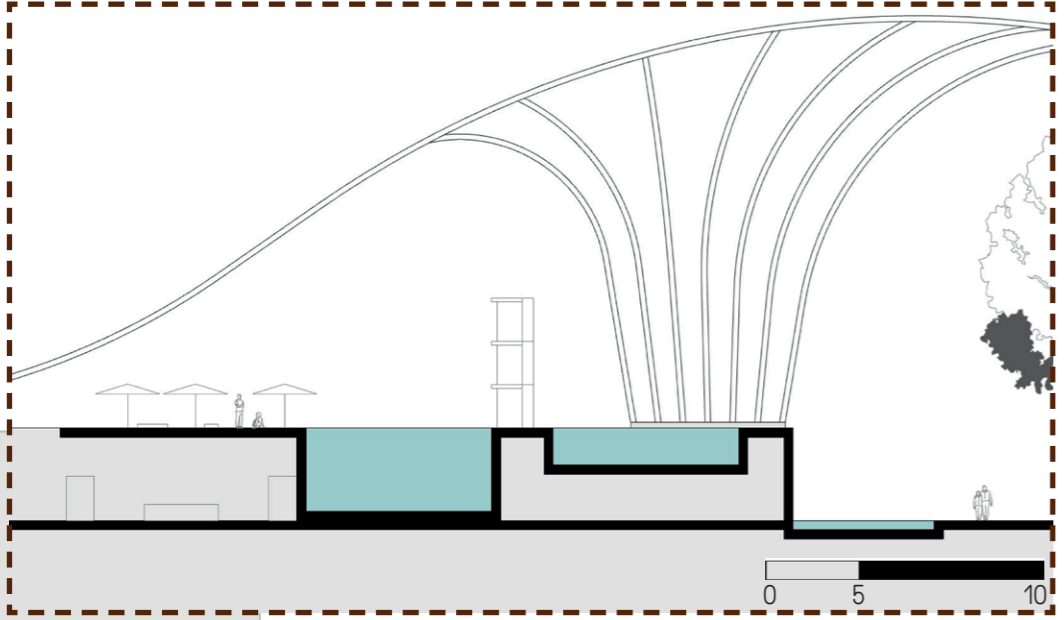
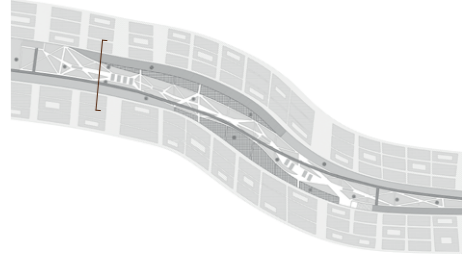
PROJETO
corte_1



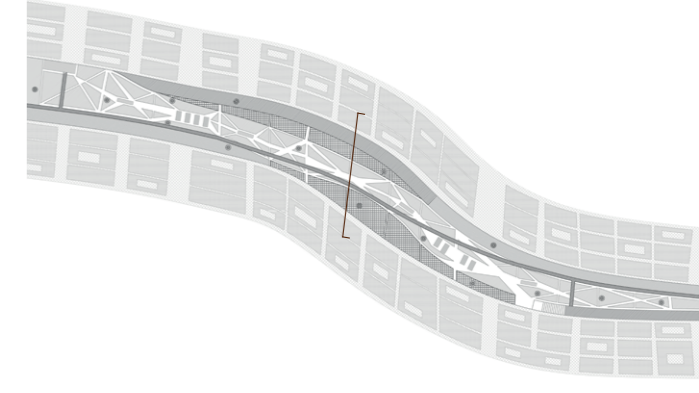
PROJETO
corte_2



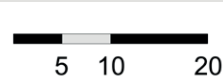
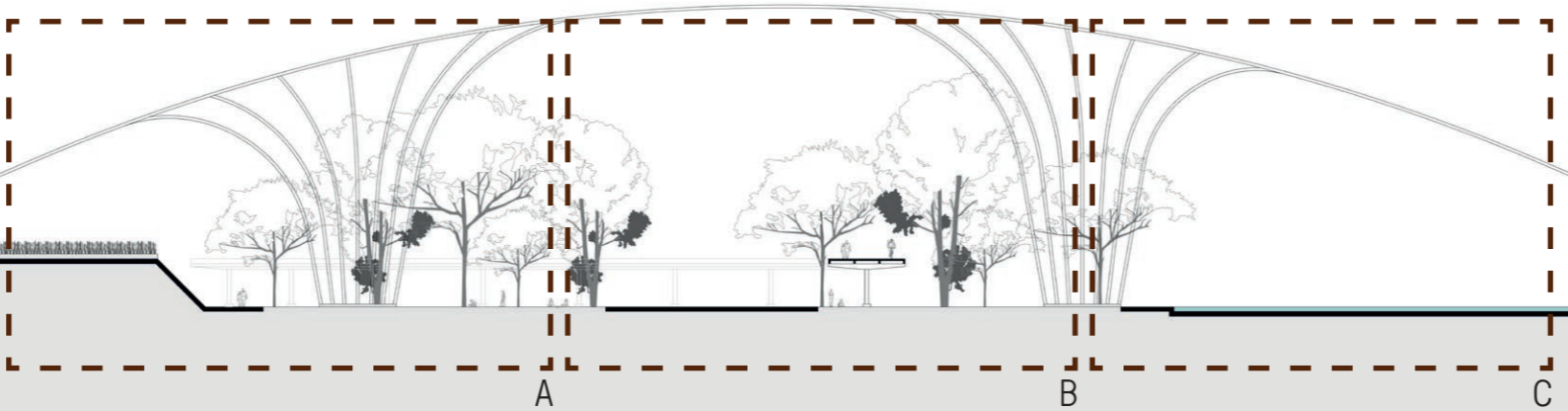
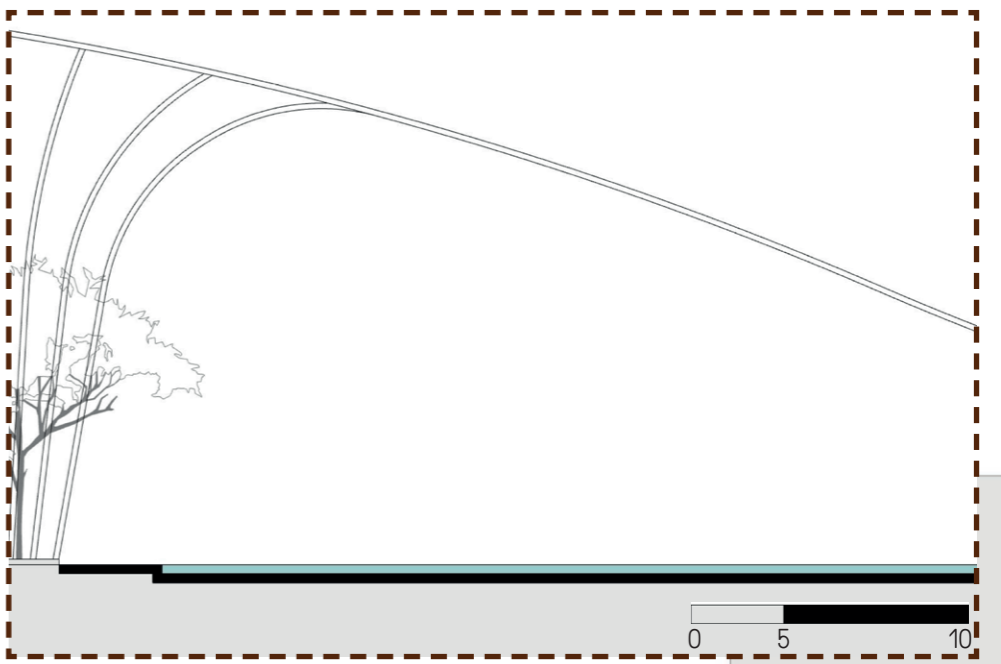
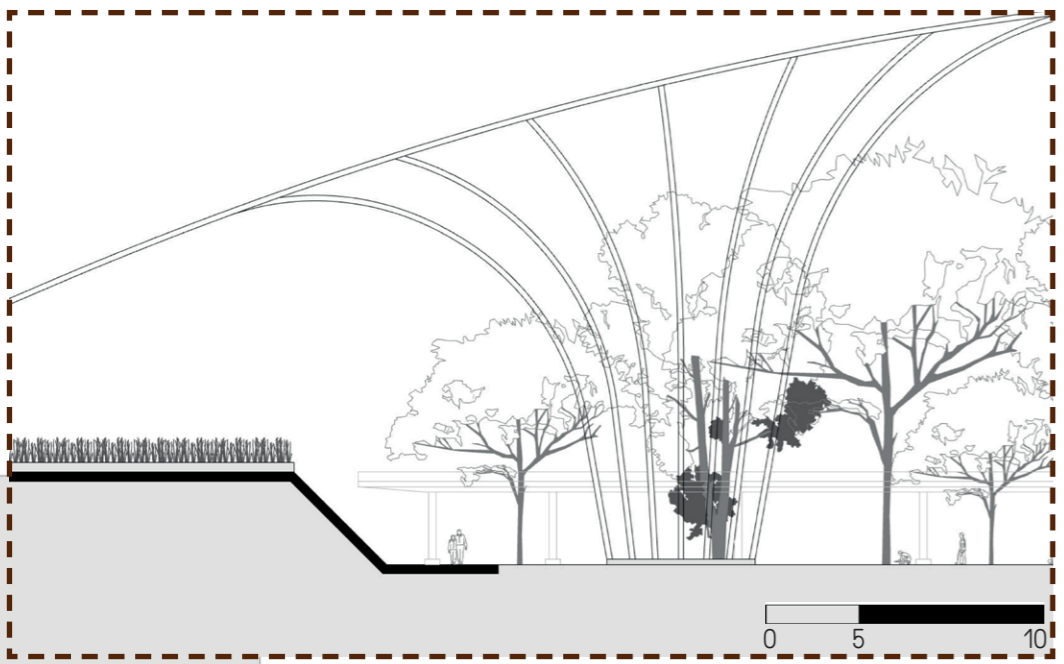
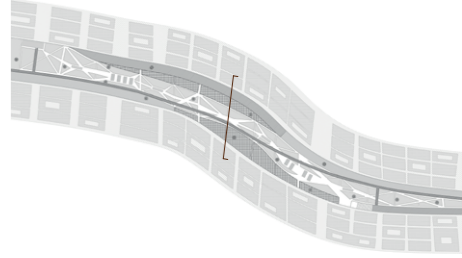
PROJETO
corte_2



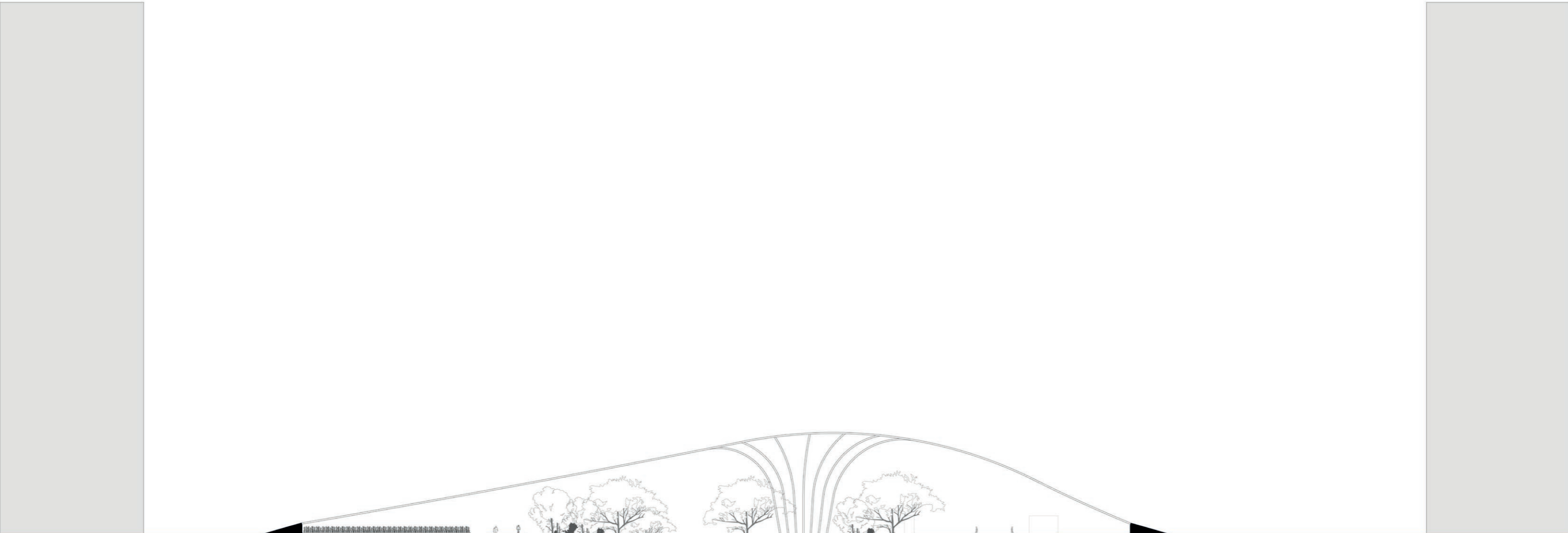
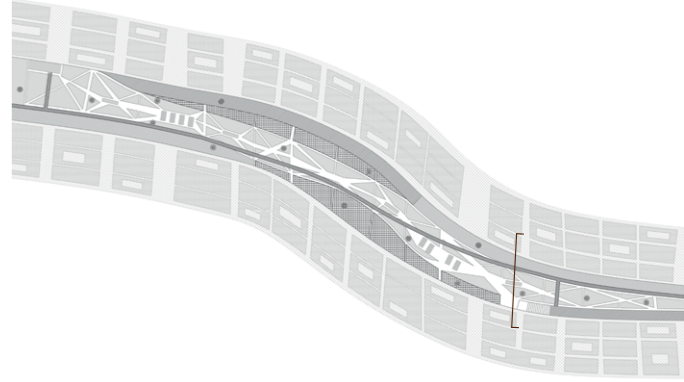
PROJETO
corte_3



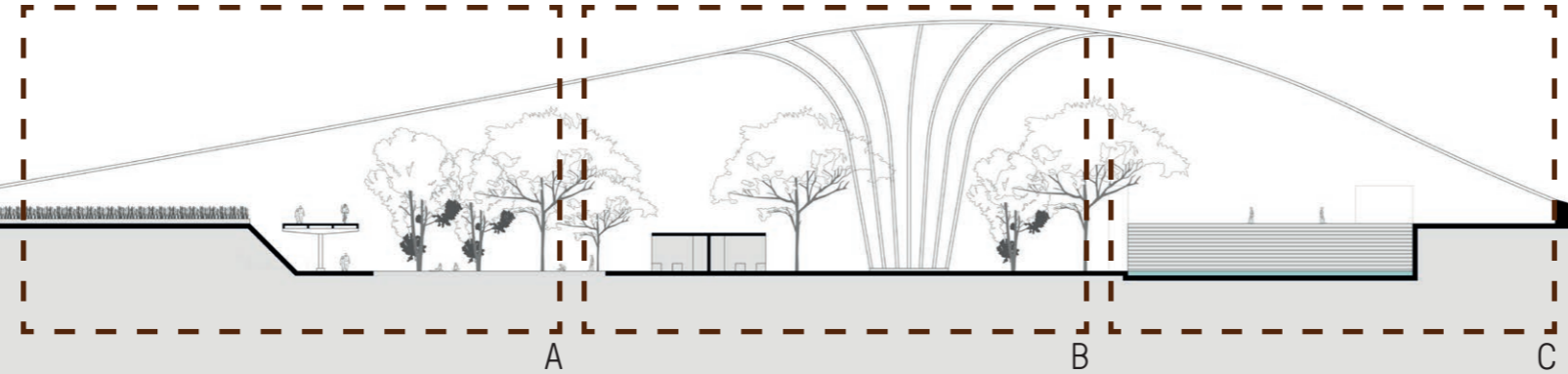
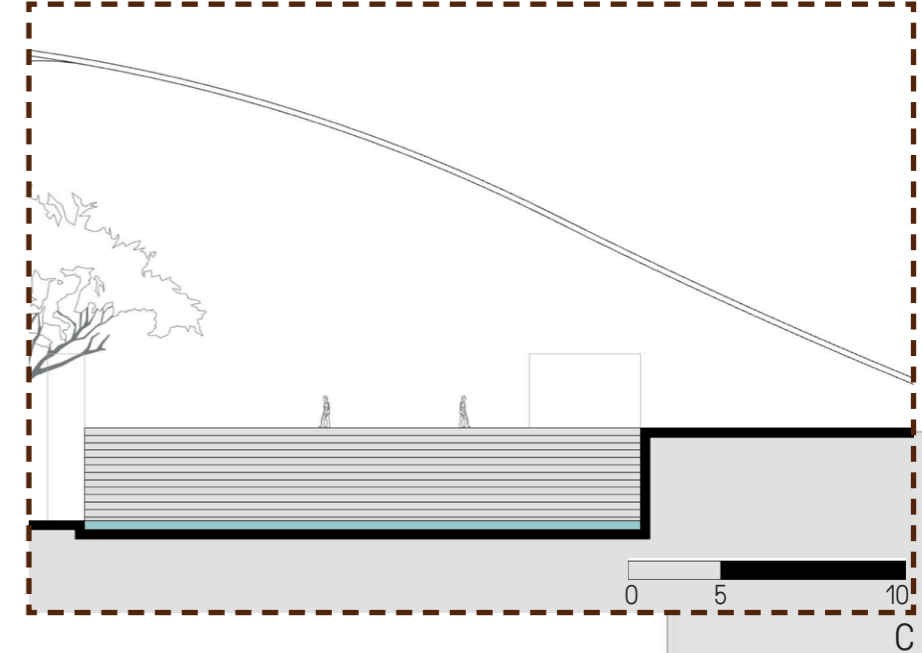
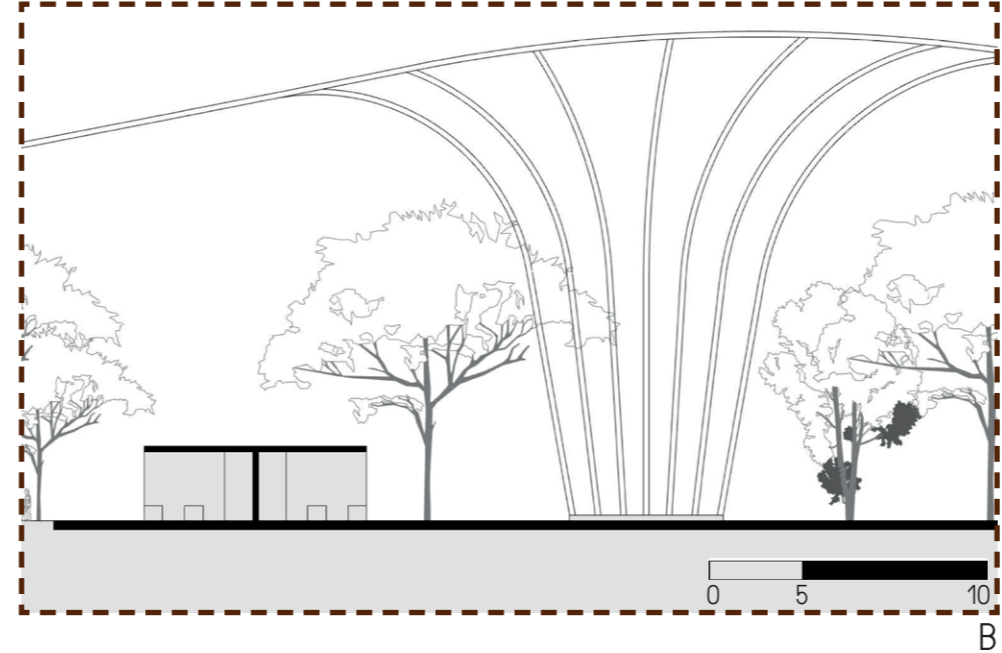
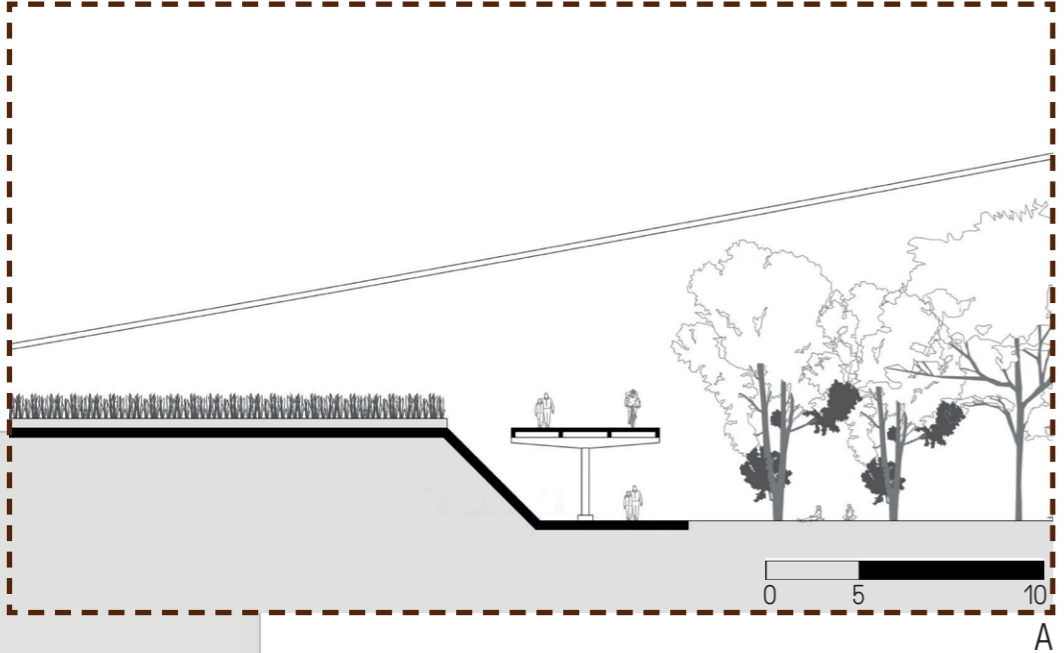
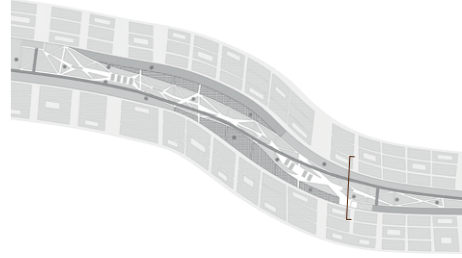
PROJETO
corte_3



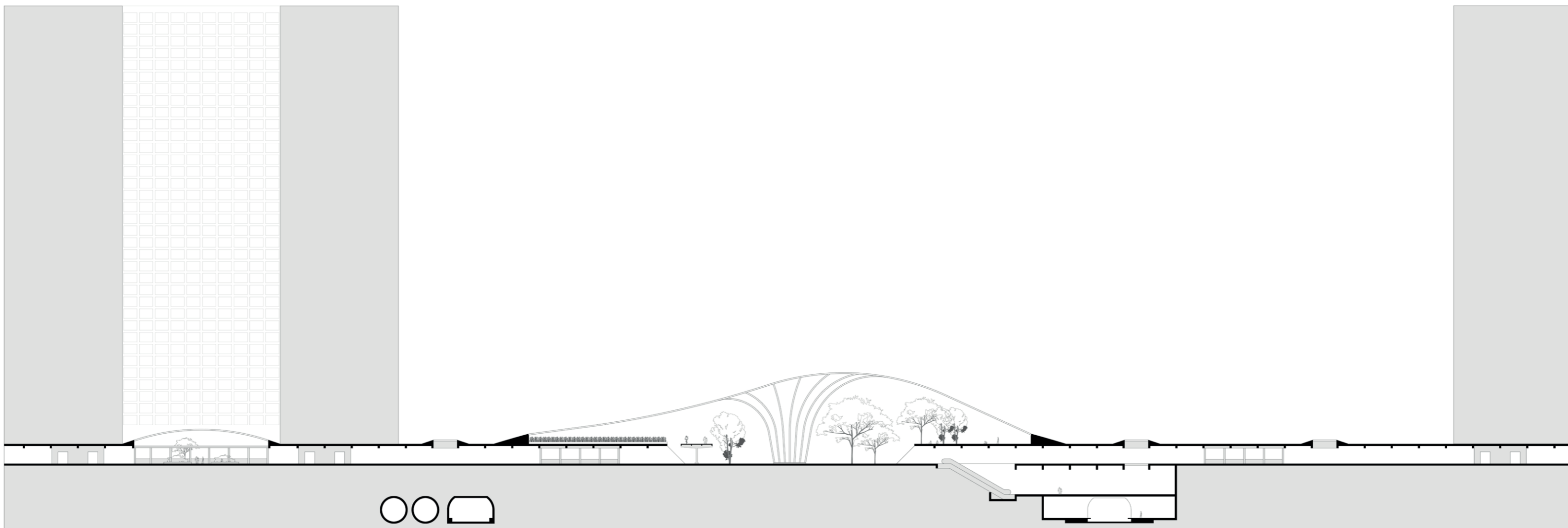
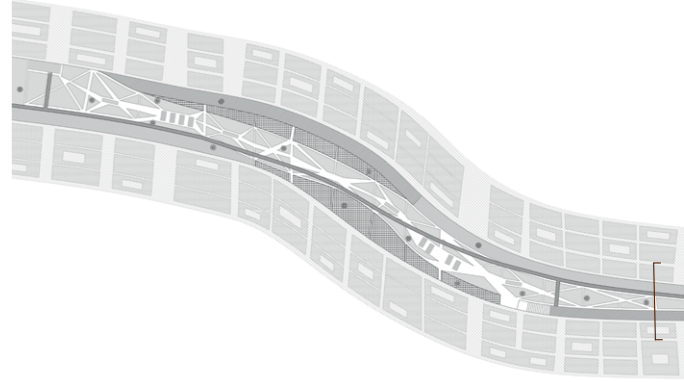
PROJETO
corte_4



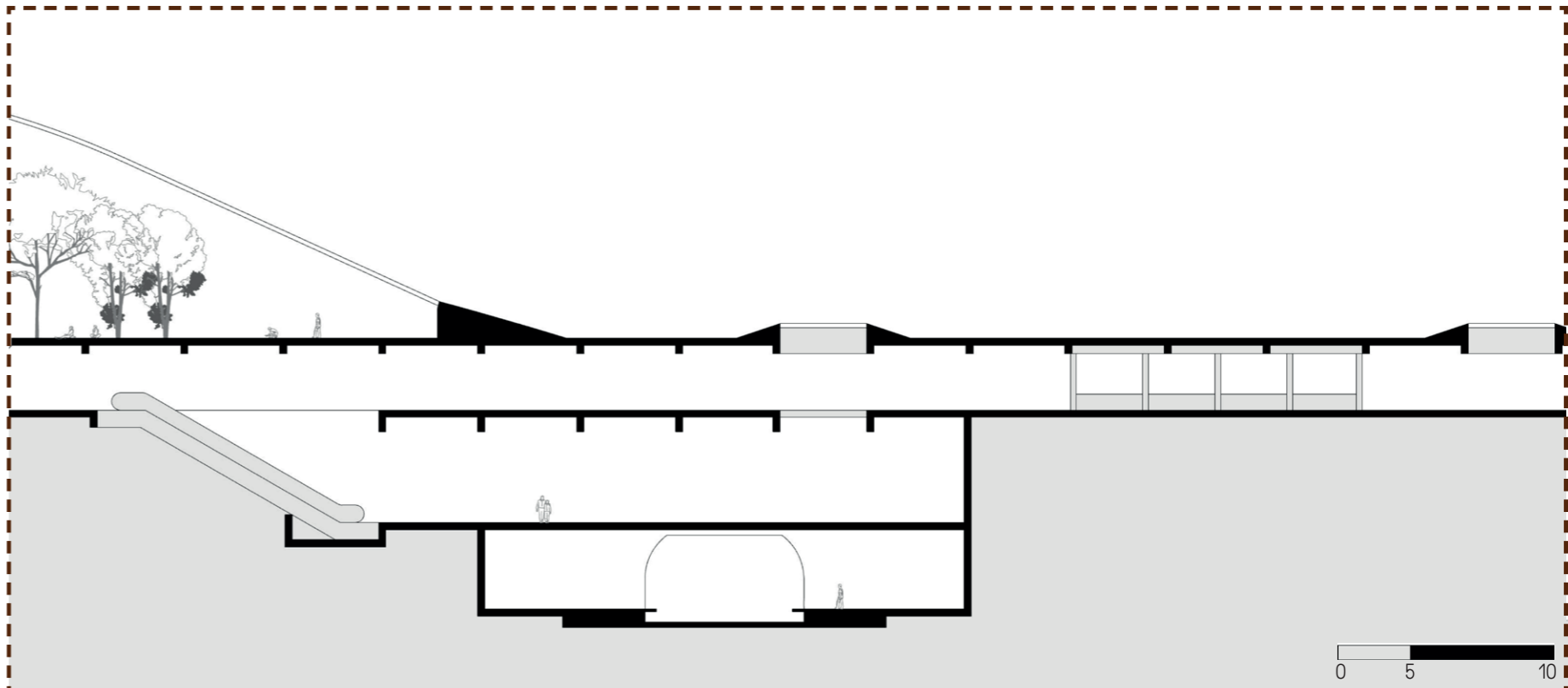
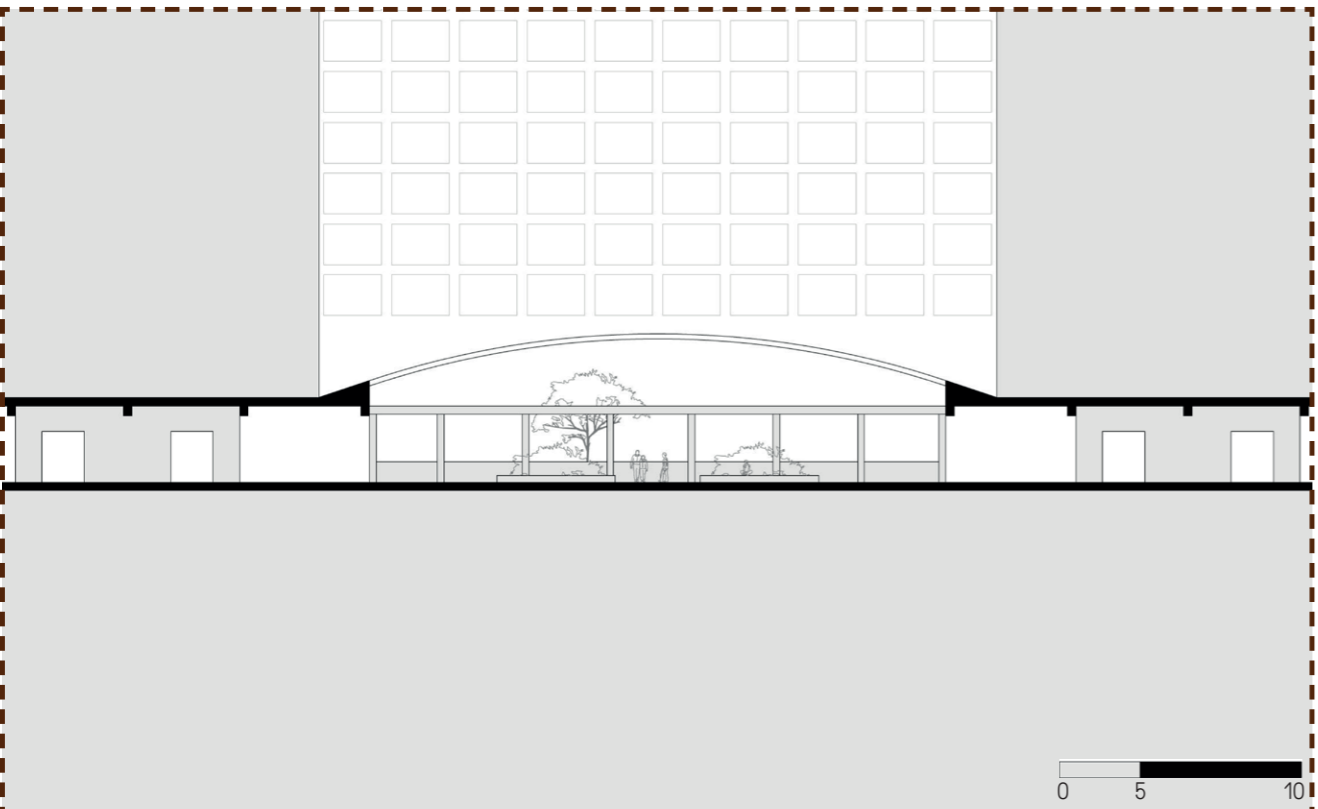
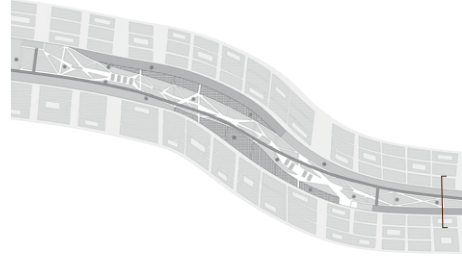
PROJETO
corte_4



PROJETO
corte_5

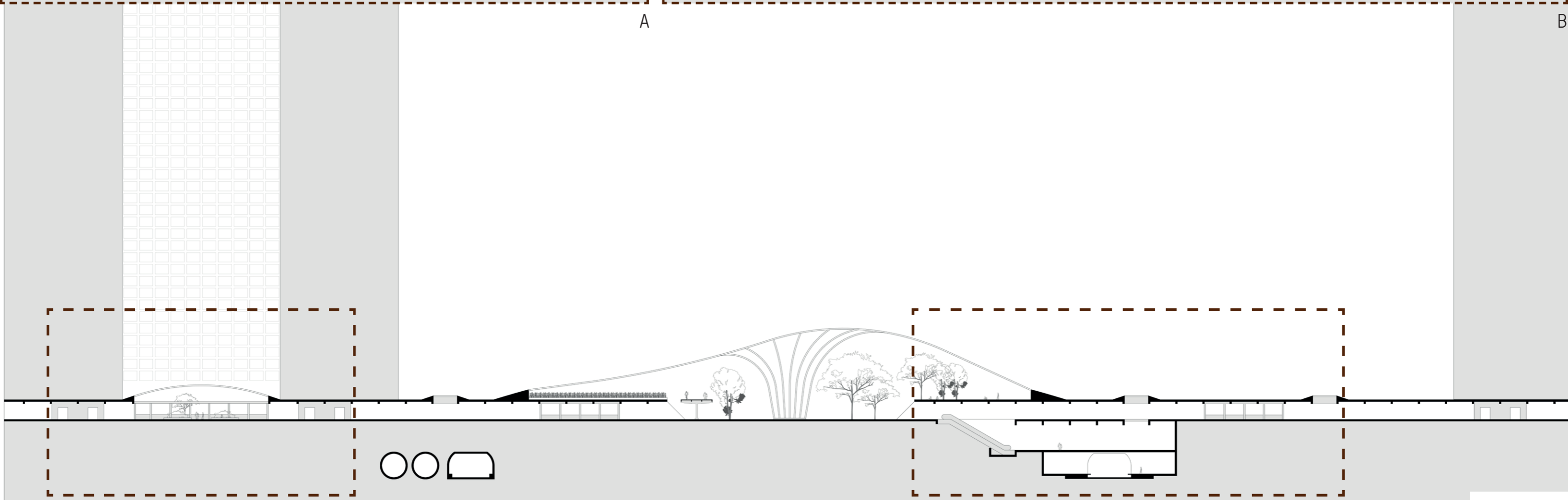


PROJETO
corte_5



A

B



A

B

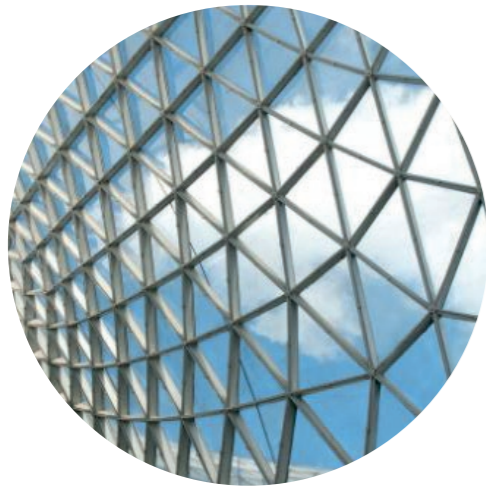
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PROJETO mobilidade



PROJETO materiais

estrutura

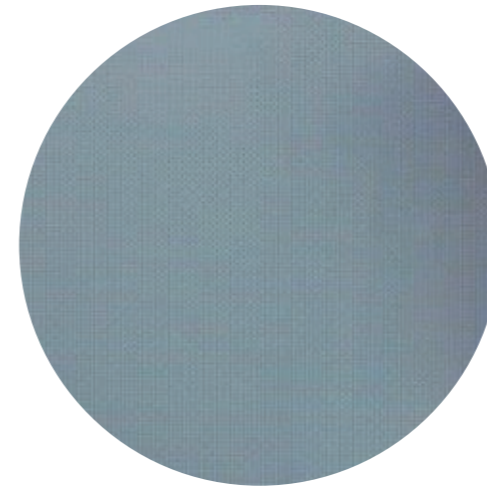


grafeno

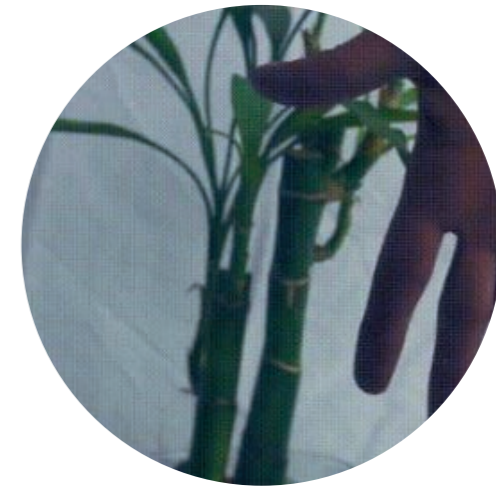
revestimento



vidro placa solar

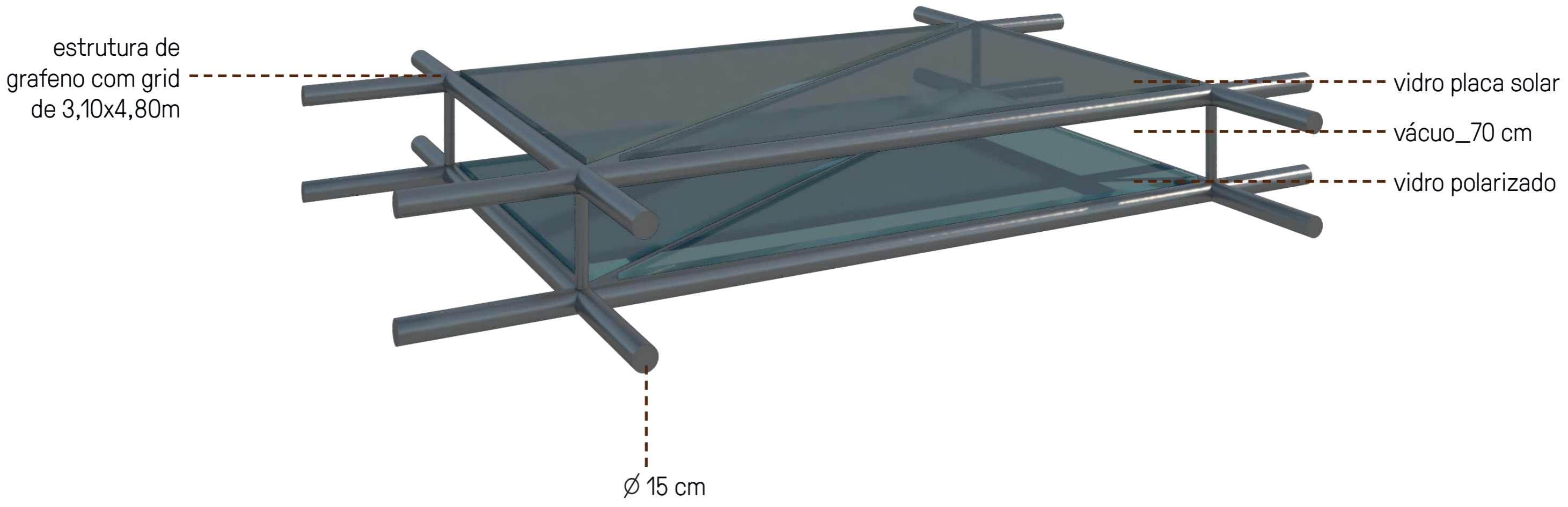


vidro polarizado
opaco

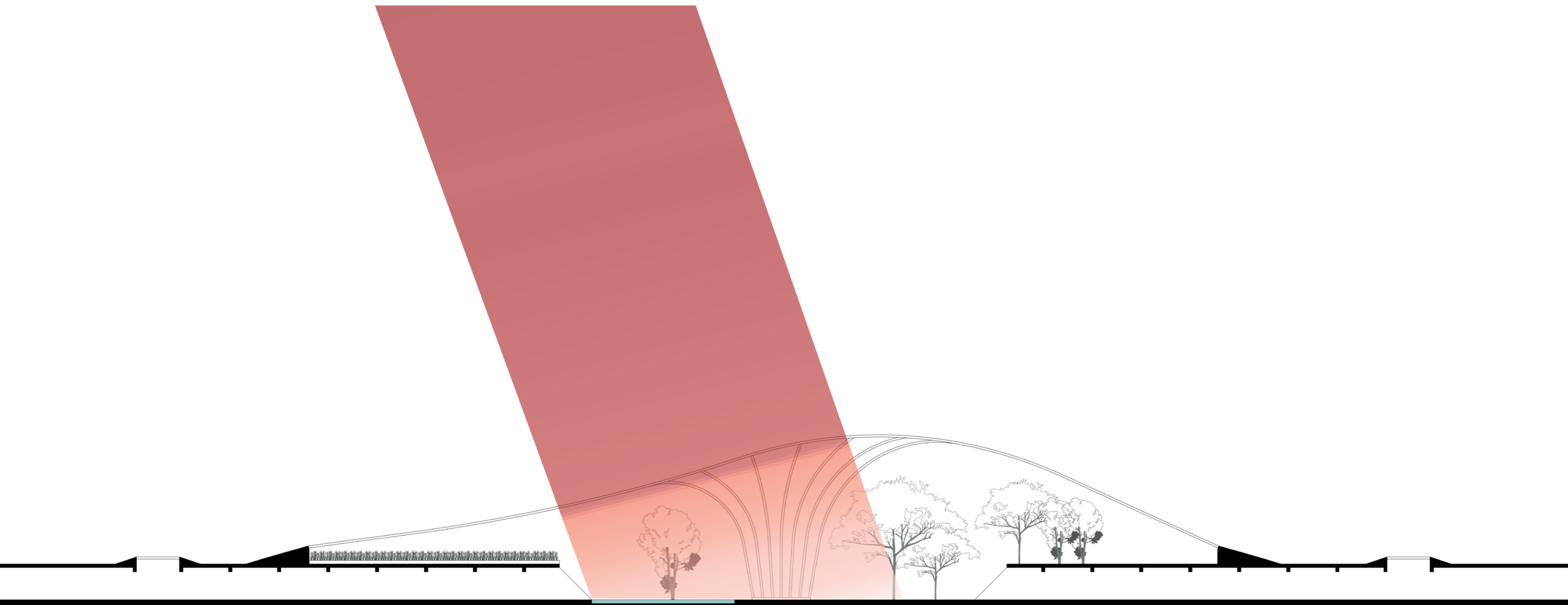


vidro polarizado
translúcido

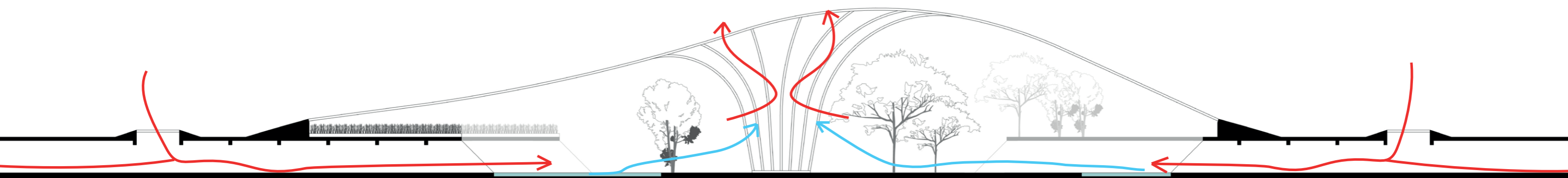
PROJETO
fechamento



PROJETO
insolação

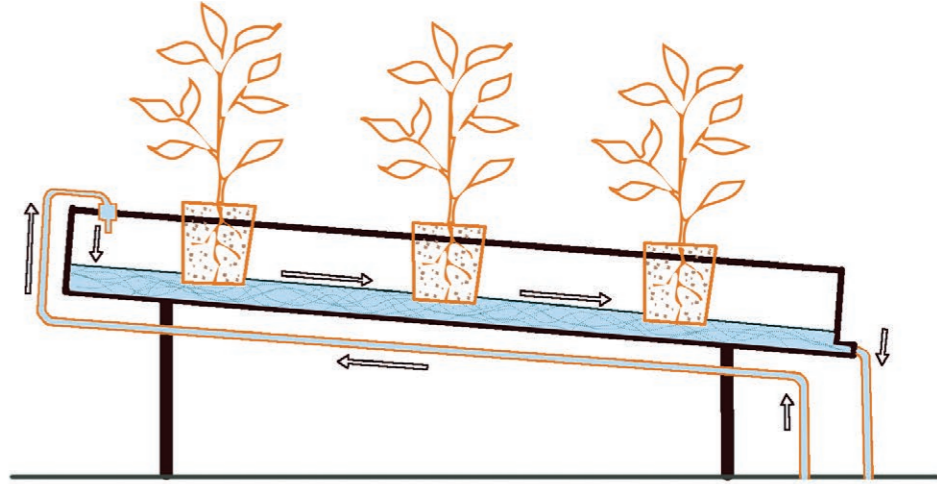


PROJETO
ventilação

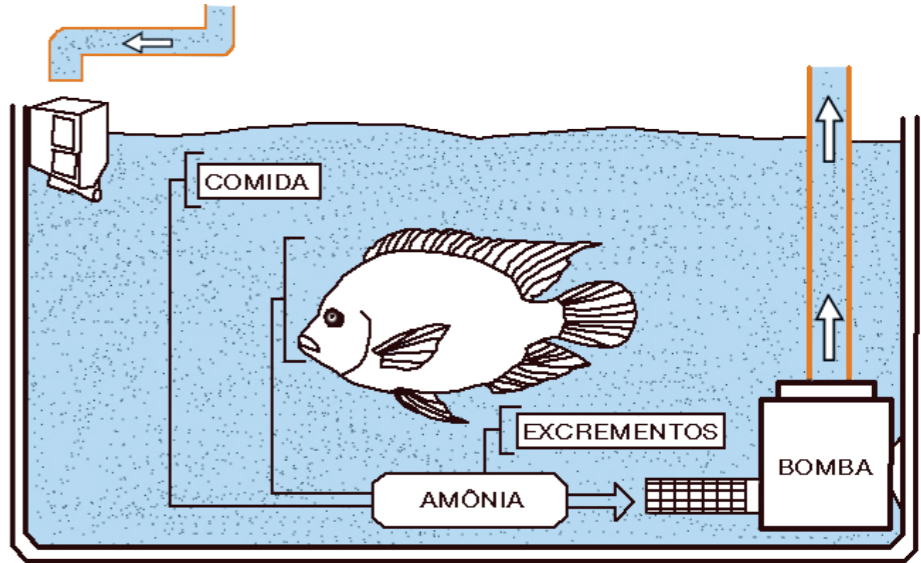


PROJETO sistema de aquaponia

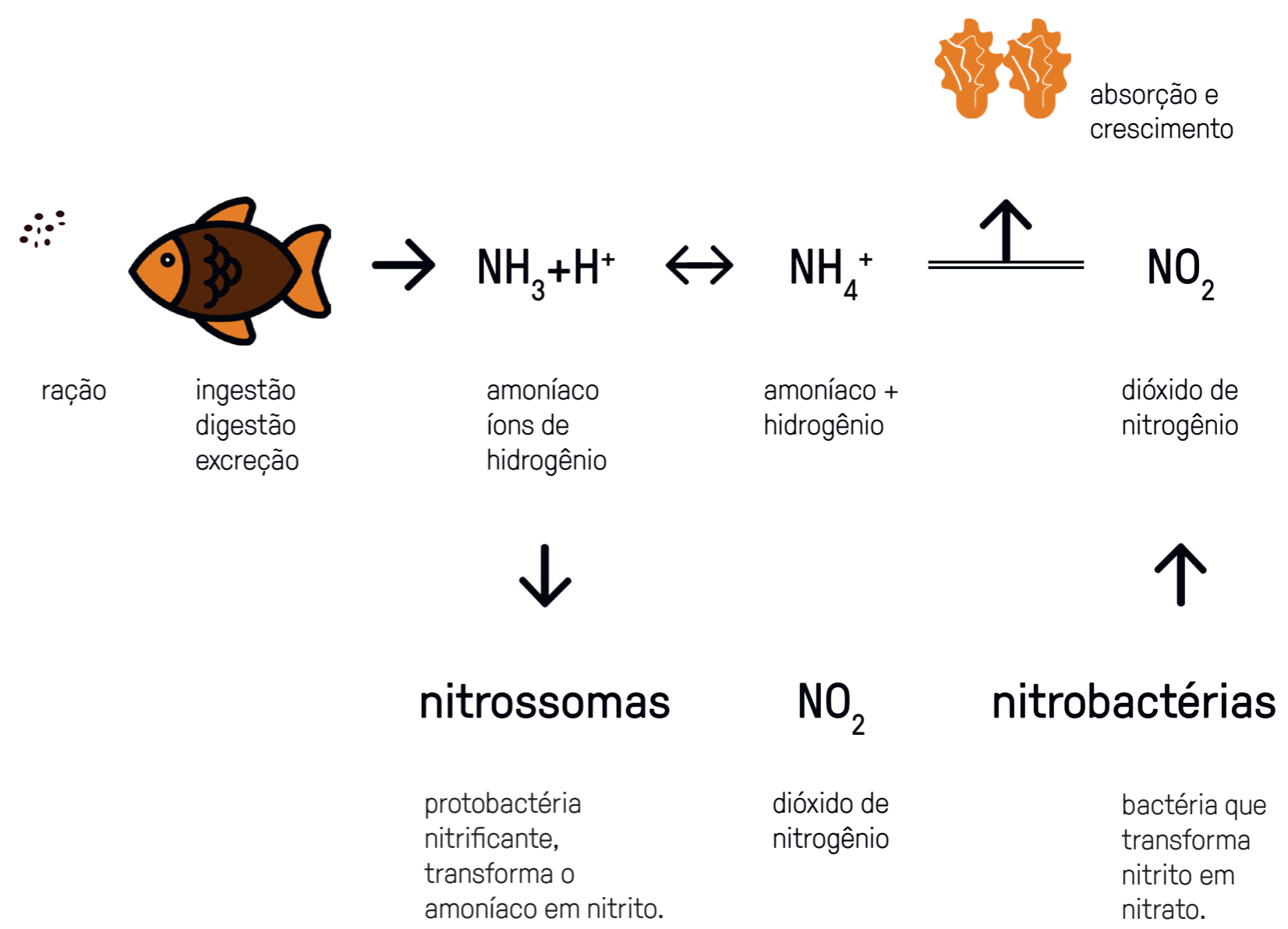
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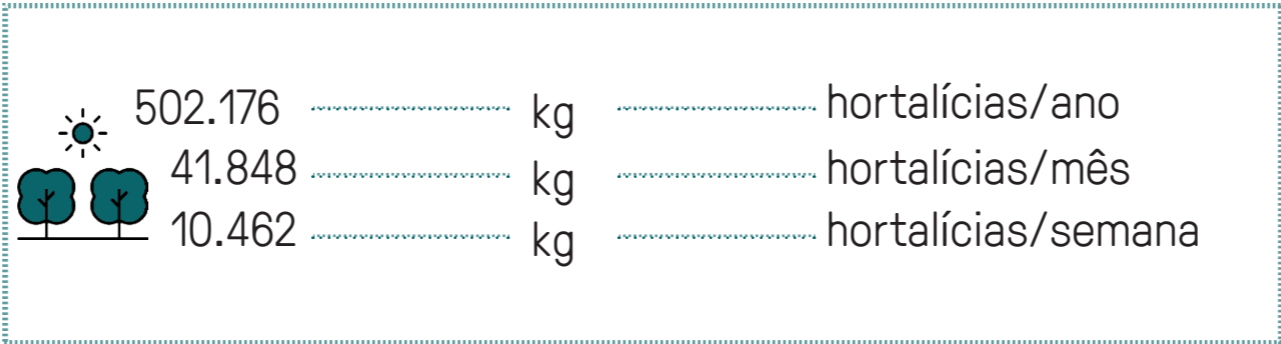
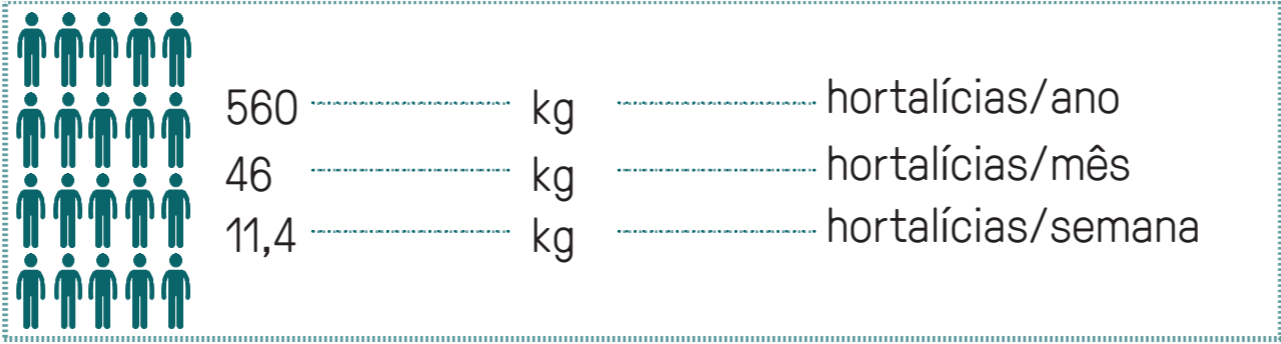
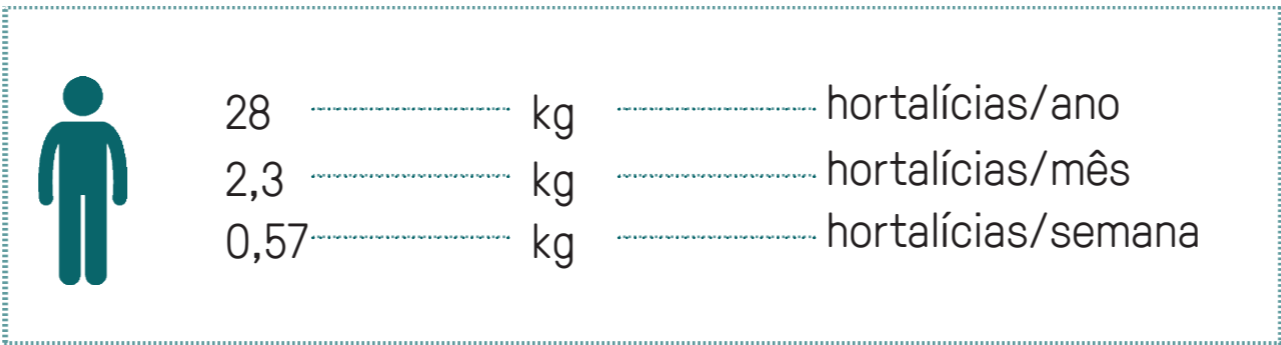
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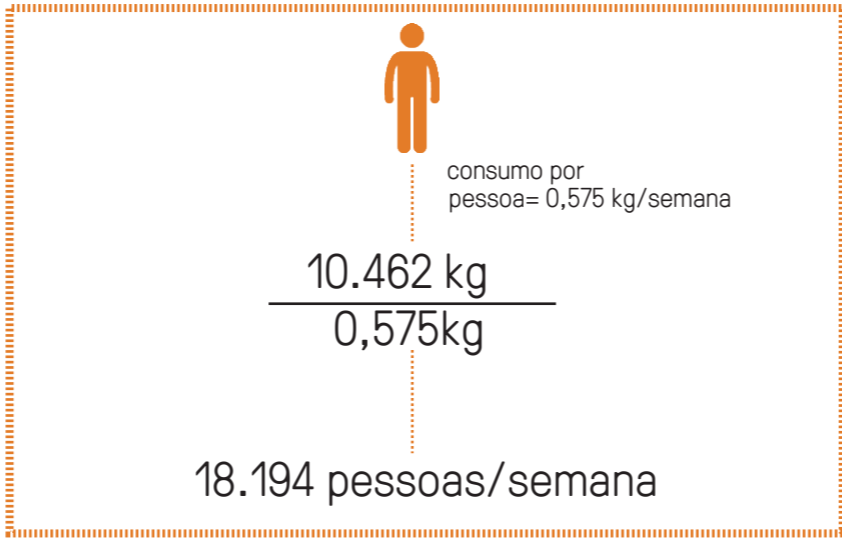
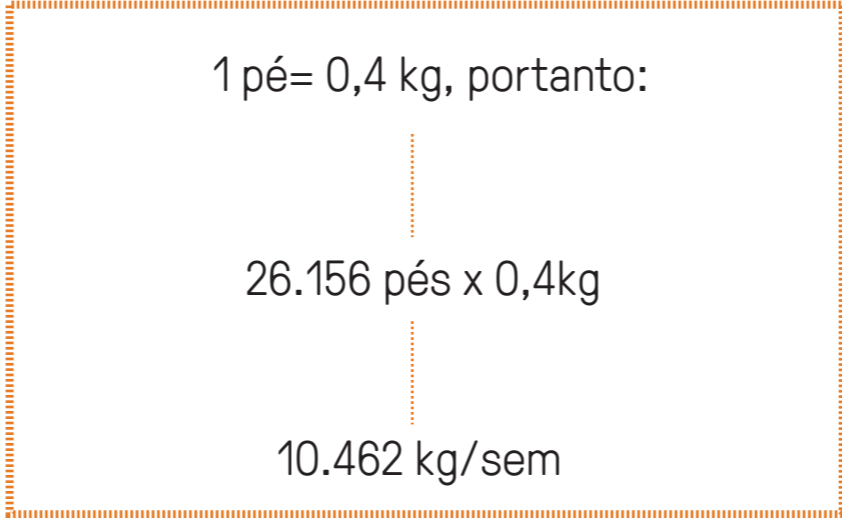
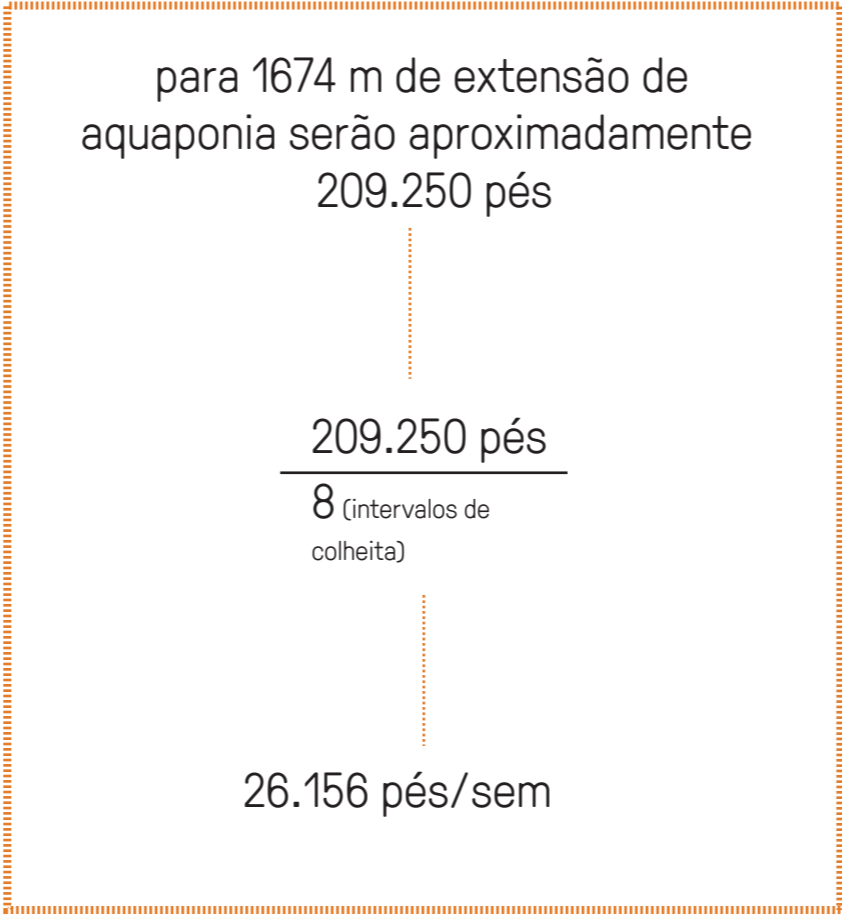
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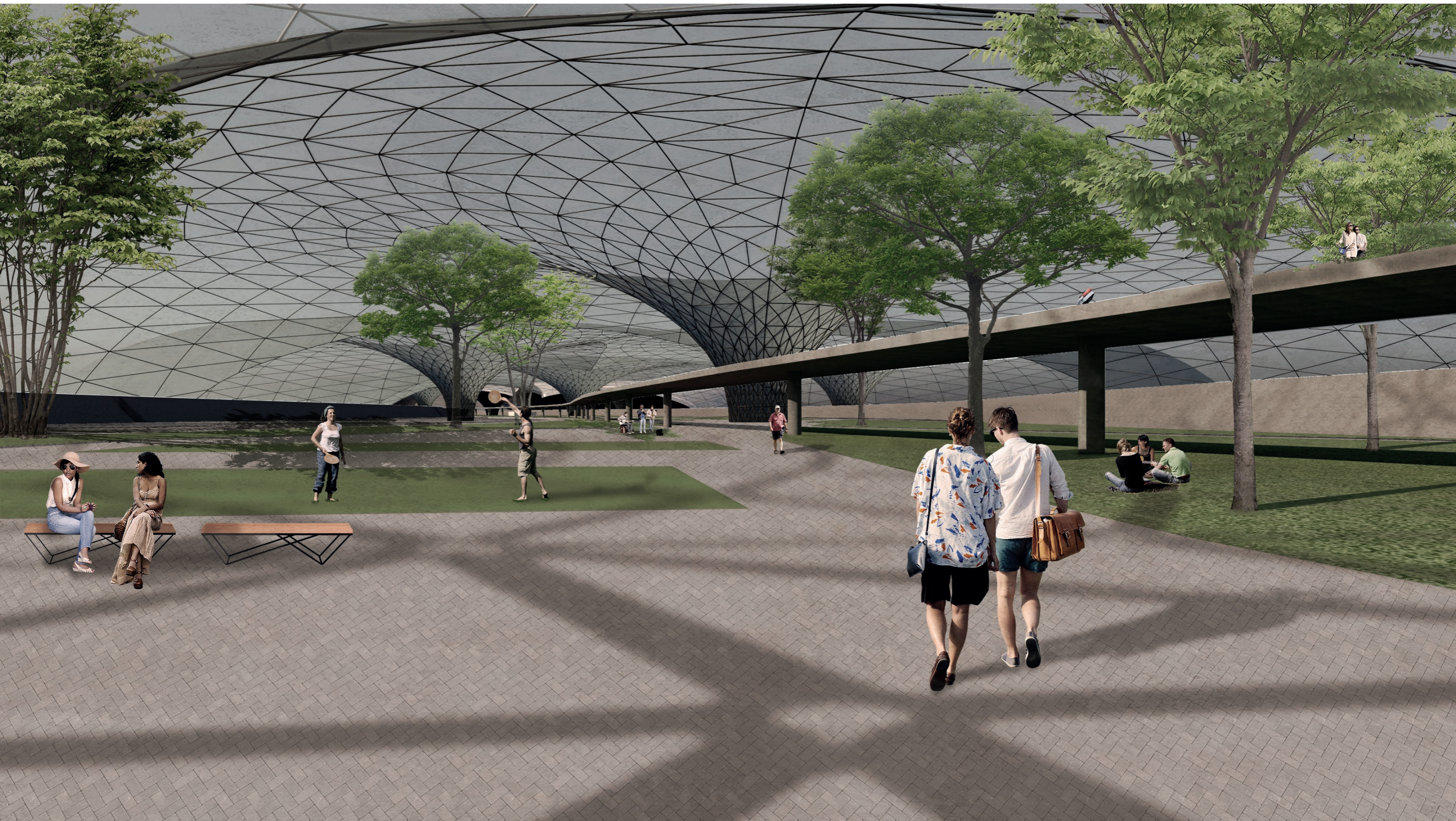
PROJETO sistema de aquaponia



PROJETO sistema de aquaponia



PROJETO
vista interna



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vista interna

