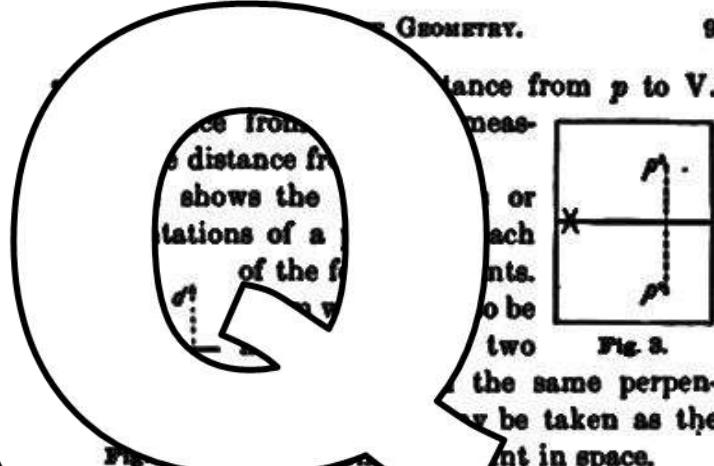


AIR



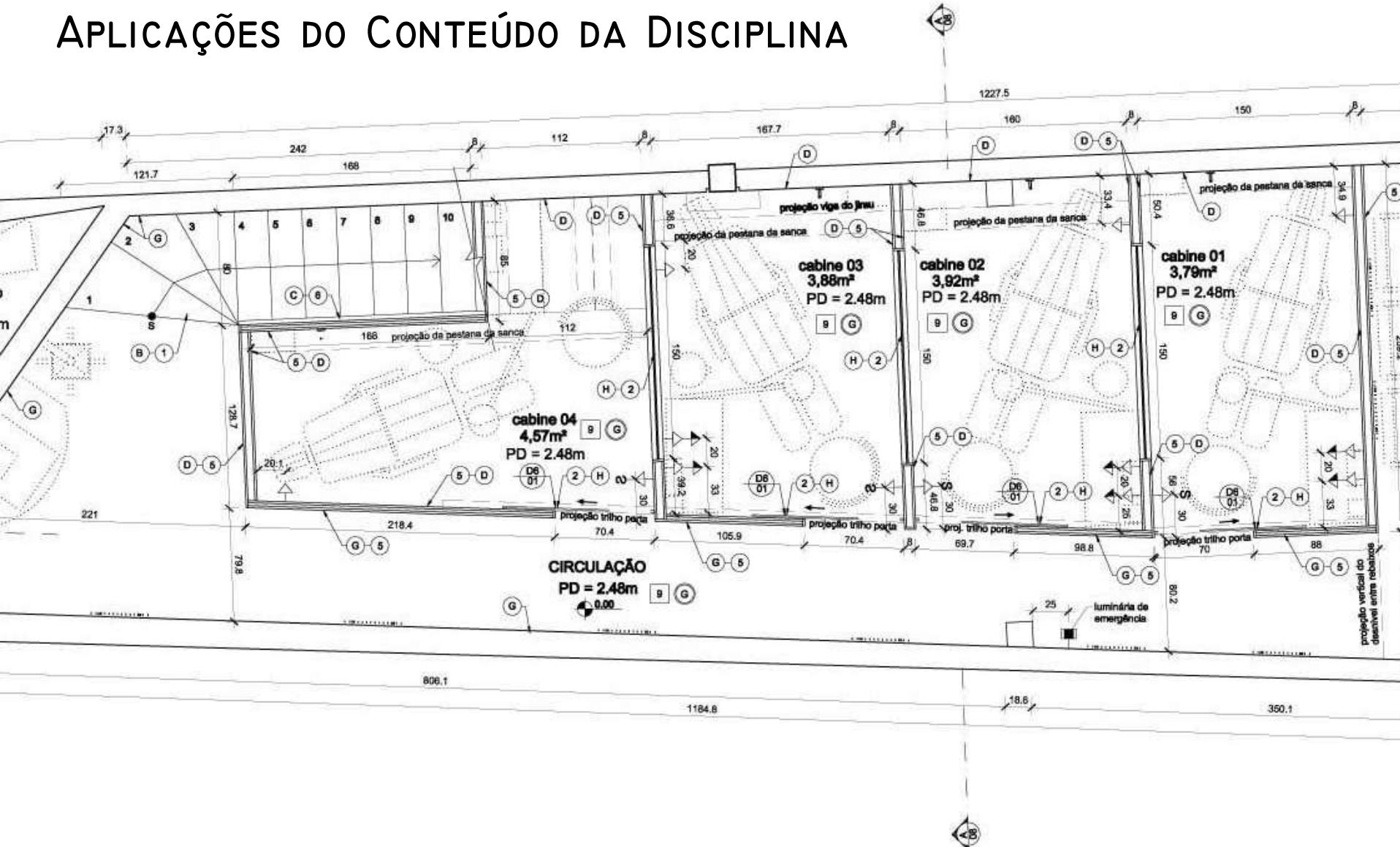
NOTATION.—Points in space will be designated by the small letters, as a , b , c . The V projections by the same letters with the exponent v , as a^v , b^v , c^v . The H projections with the same letters with the exponent h , as a^h , b^h , c^h . Successive positions of the same points will be denoted by subscripts, as a_1^h , a_2^h , a_3^h .

PROBLEM 1.—Having the direction and distance of a point in space, from H to V , to draw its projections.

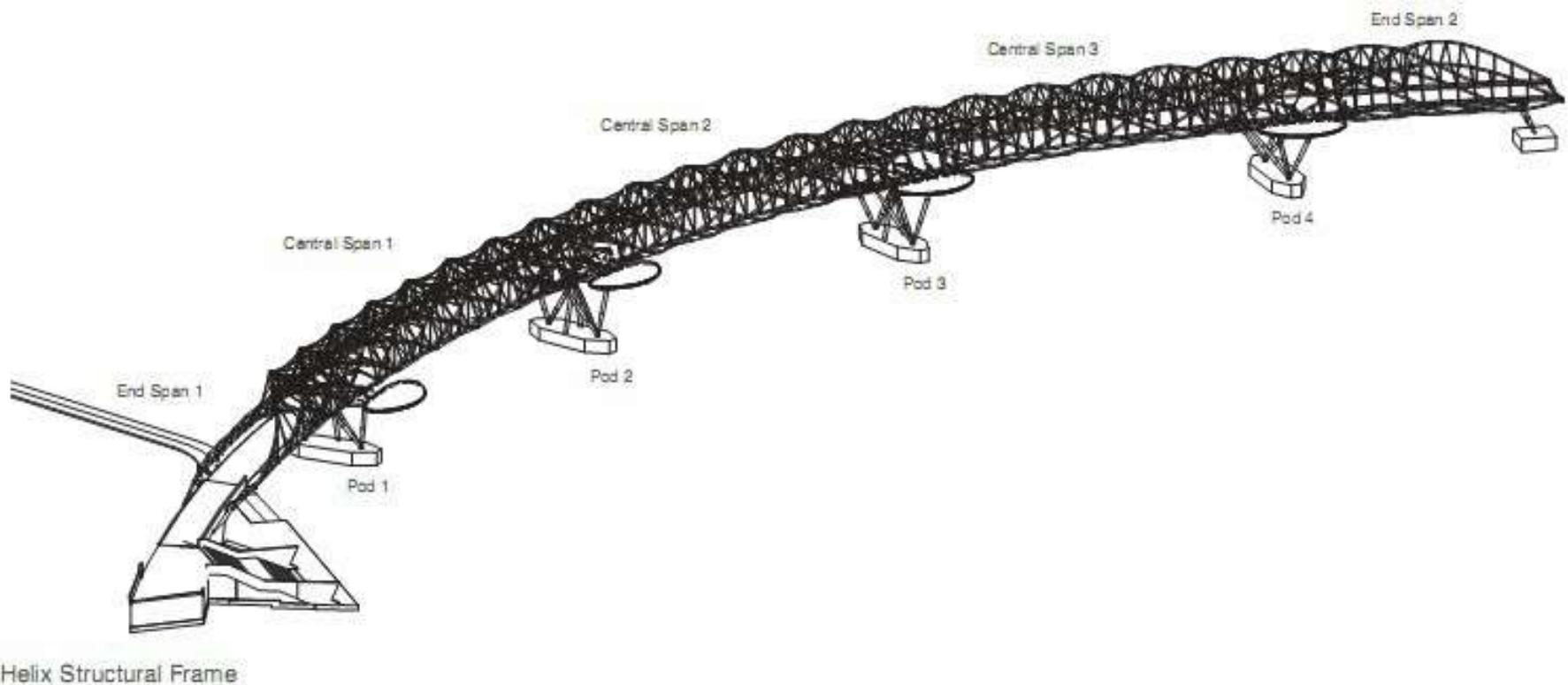
Draw any perpendicular X above H so that X is at the same distance from H as the point V is from H ; this will be the V projection of the point. On the same perpendicular X draw a similar set of

2001

APLICAÇÕES DO CONTEÚDO DA DISCIPLINA



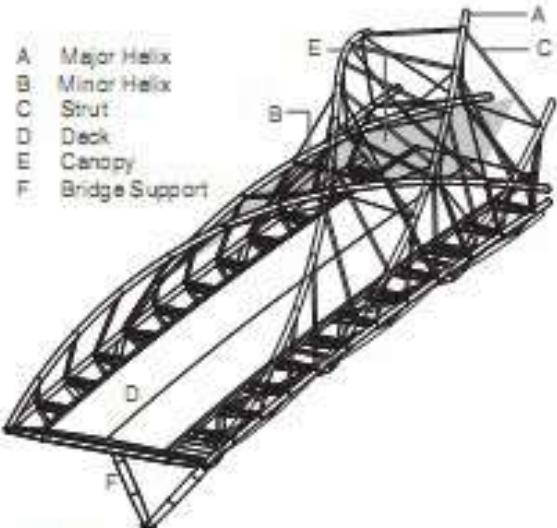
I. LEITURA / INTERPRETAÇÃO DE PROJETOS



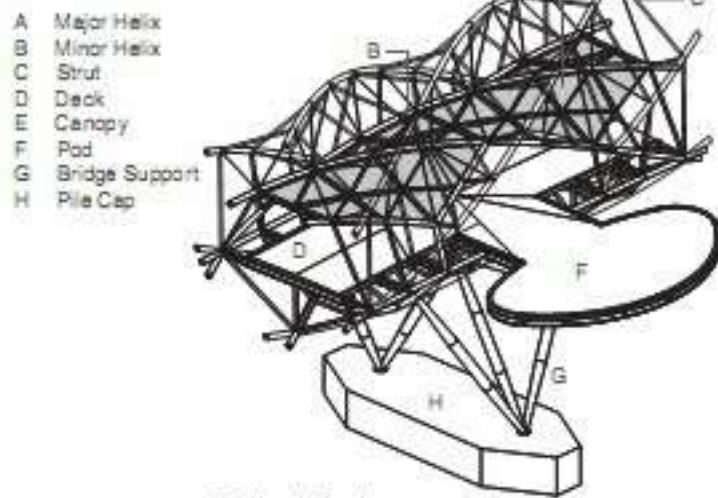
2. DESENHO DE EDIFICAÇÕES. (POR QUE NÃO É PROJETO?)

ARCHITECTS COX ARCHITECTURE_ ARCHITECTS 61
RAFFLES AVENUE AND BAYFRONT BRIDGE – SINGAPURA - 2010
SGD\$ 82 900 000,00

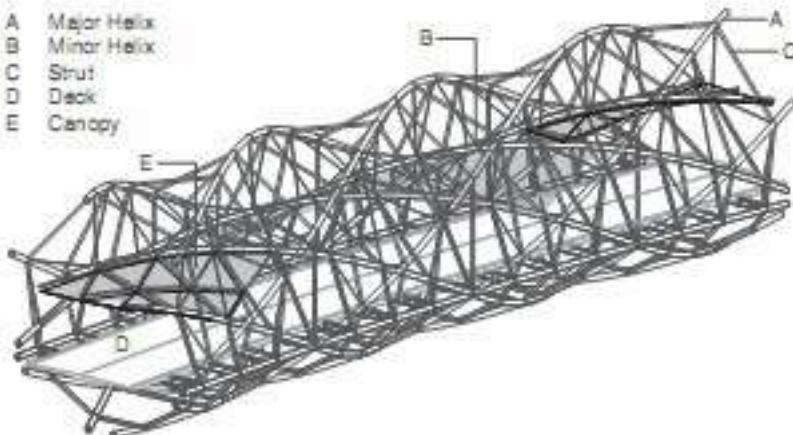




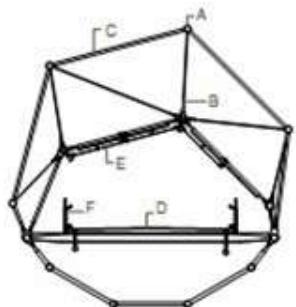
End Span



Typical Pod

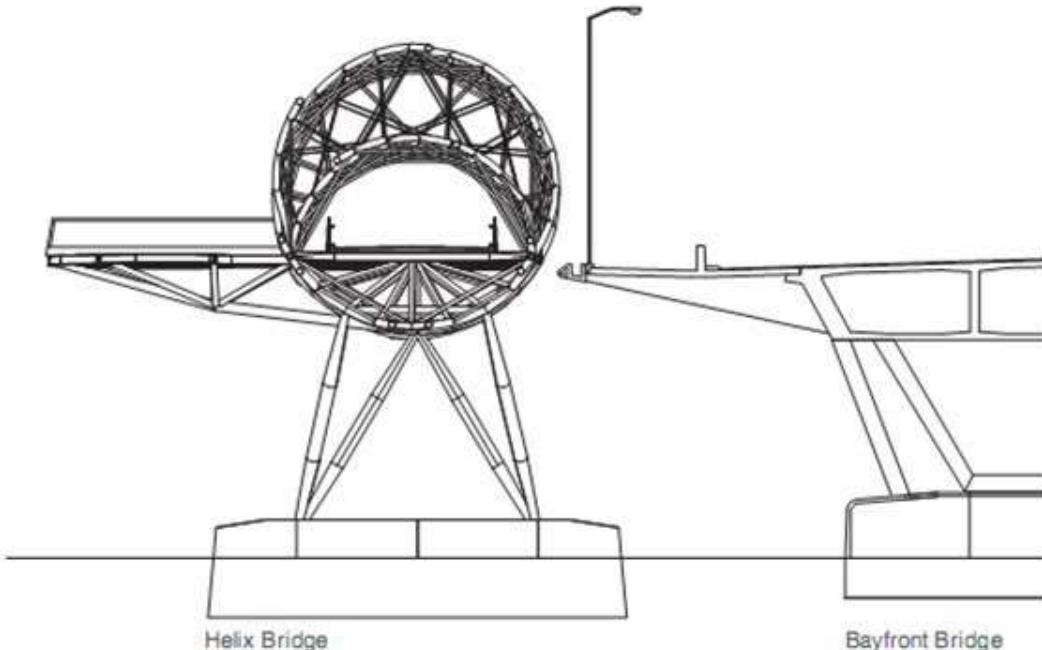


Central Span



A Major Helix
B Minor Helix
C Strut
D Deck
E Canopy
F Glass/Steel Balustrade

Bridge Section



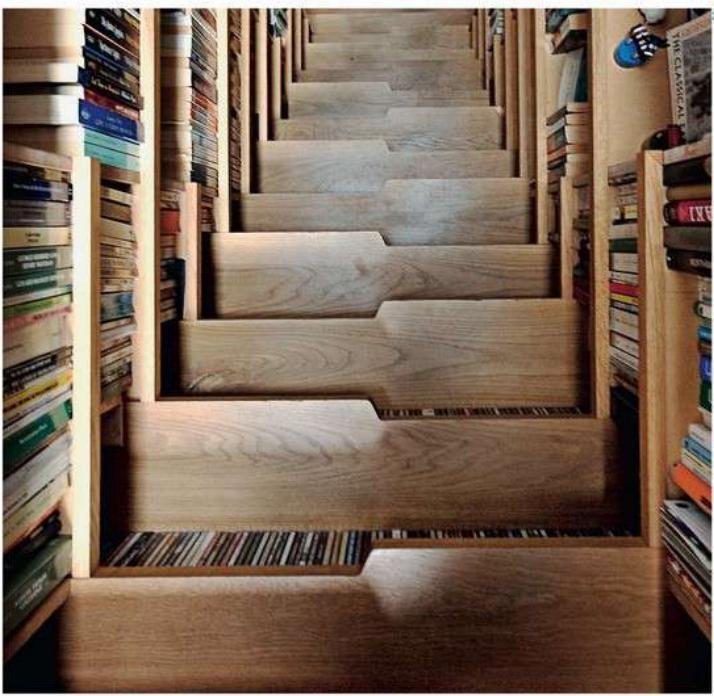
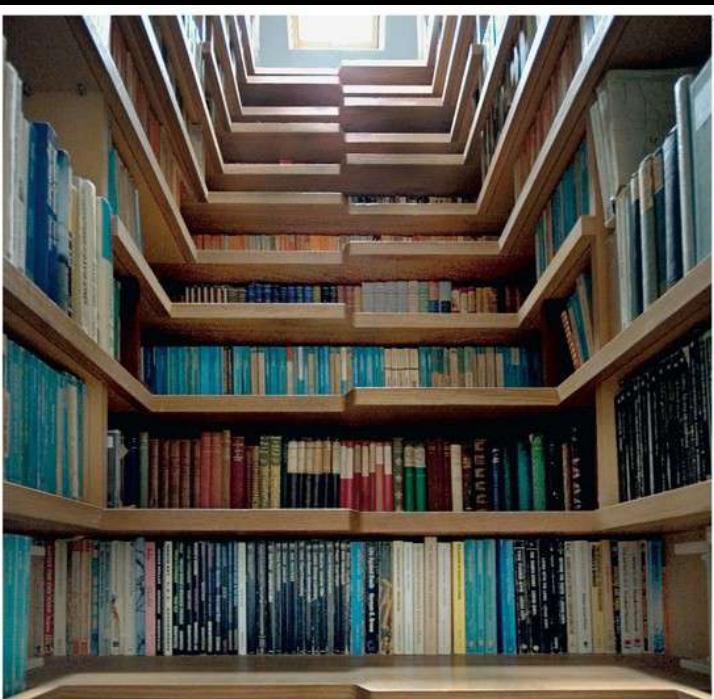
Helix Bridge

Bayfront Bridge

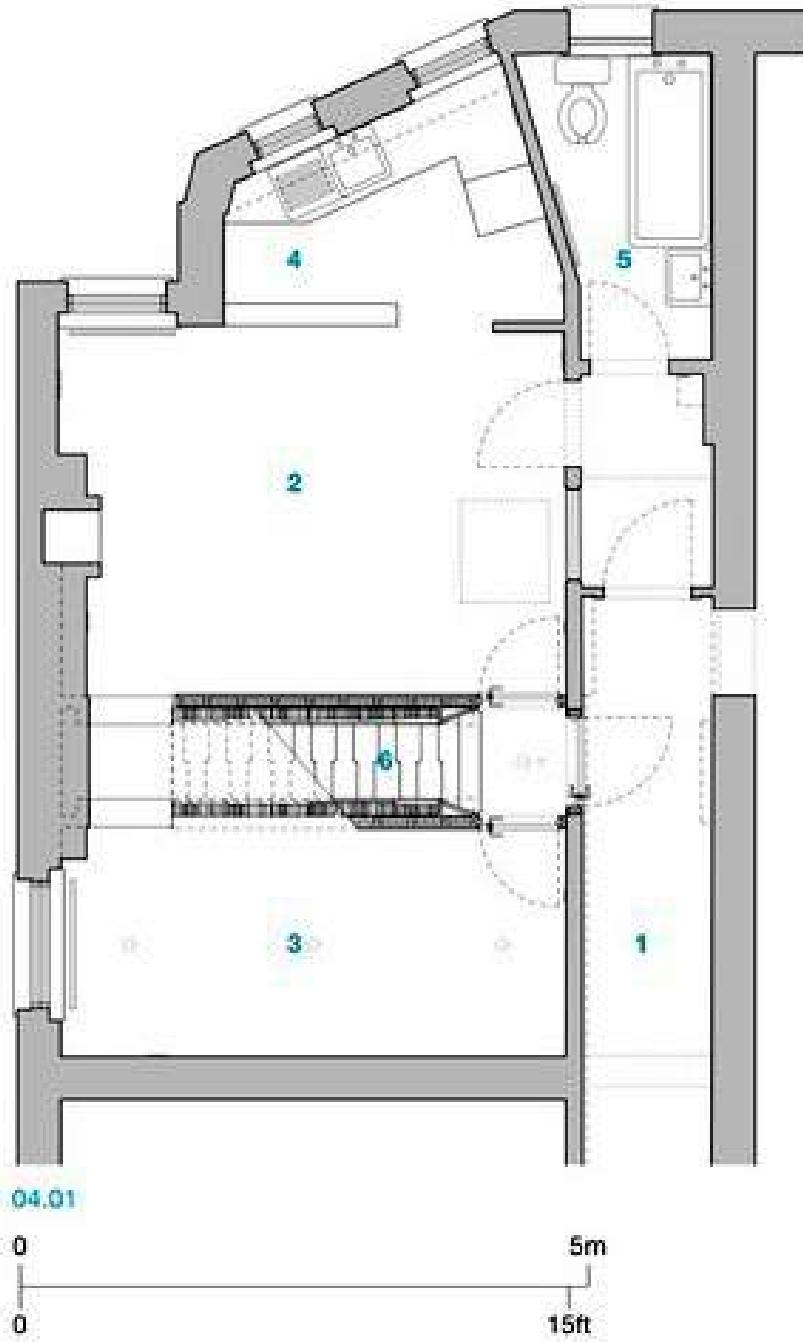
Section

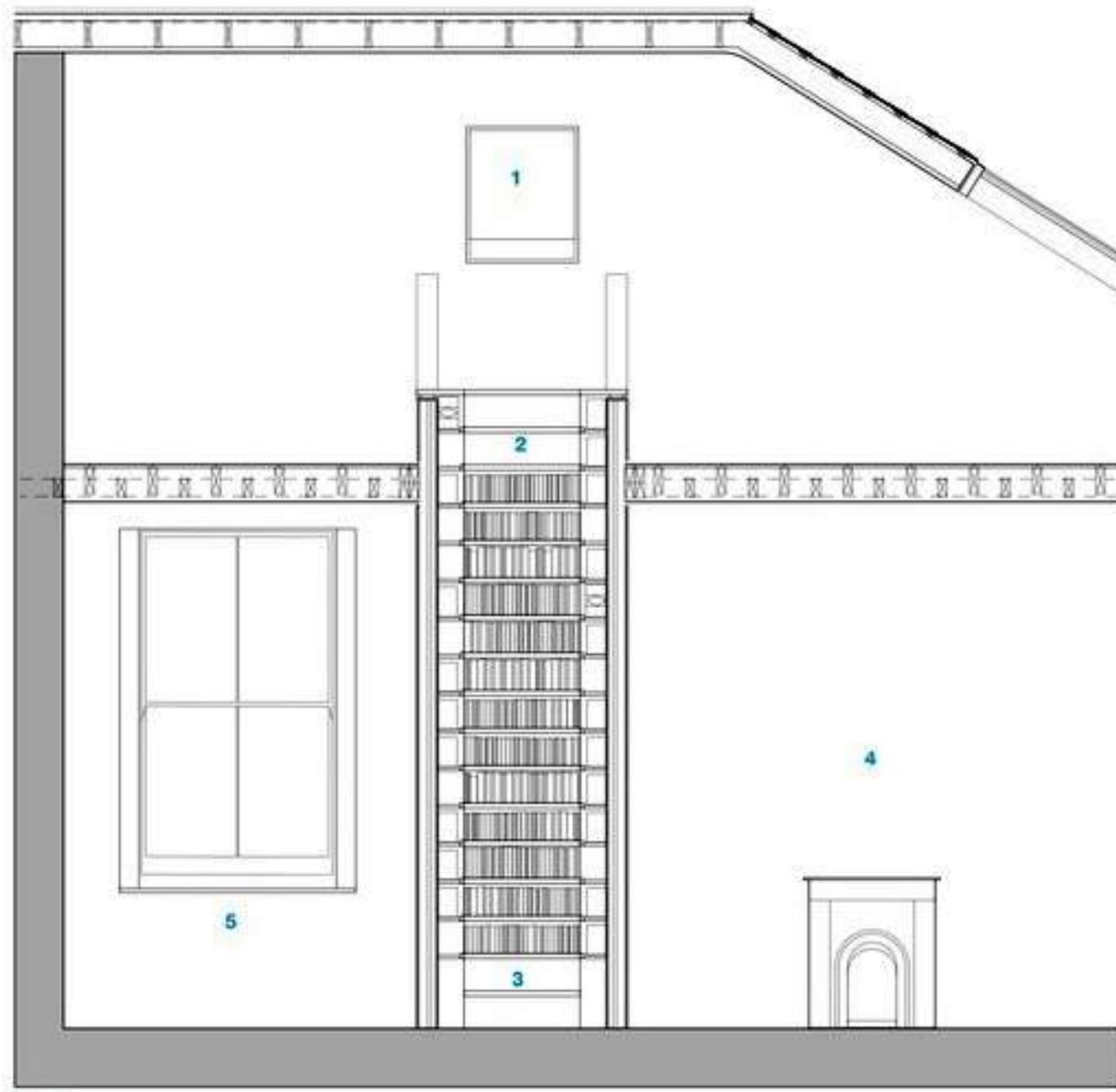
1:250 0 2 4 6 8 COX



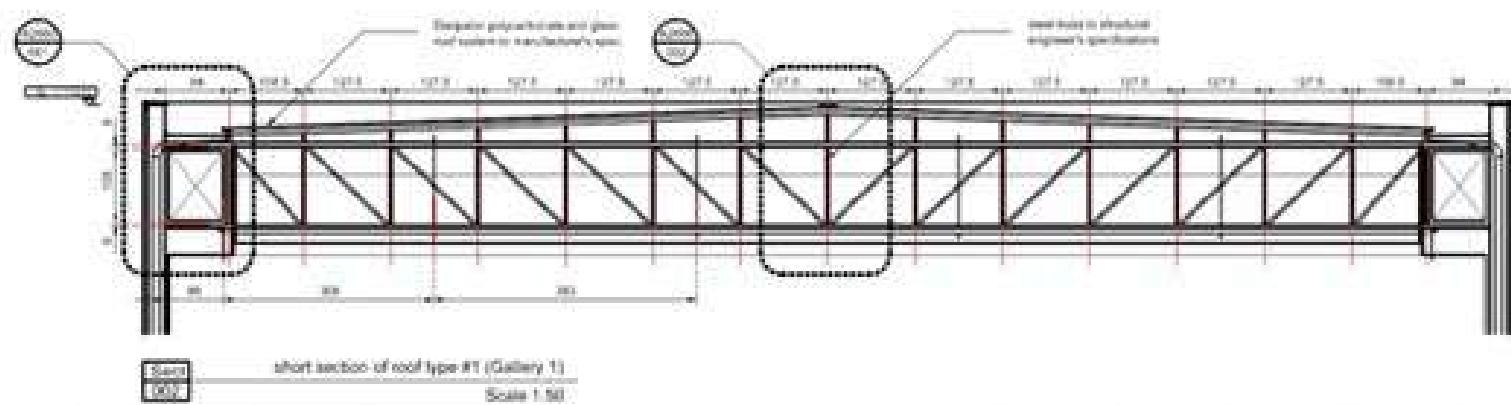
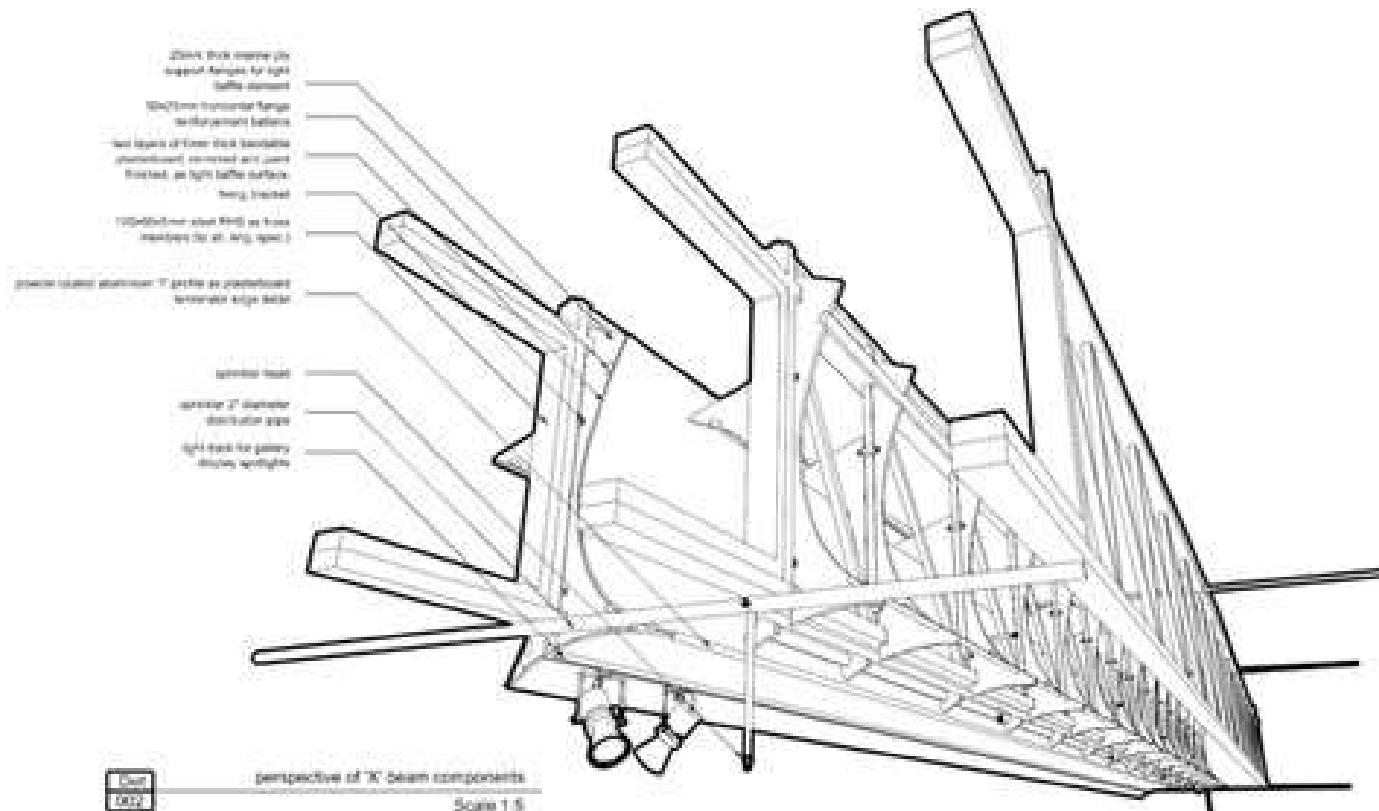


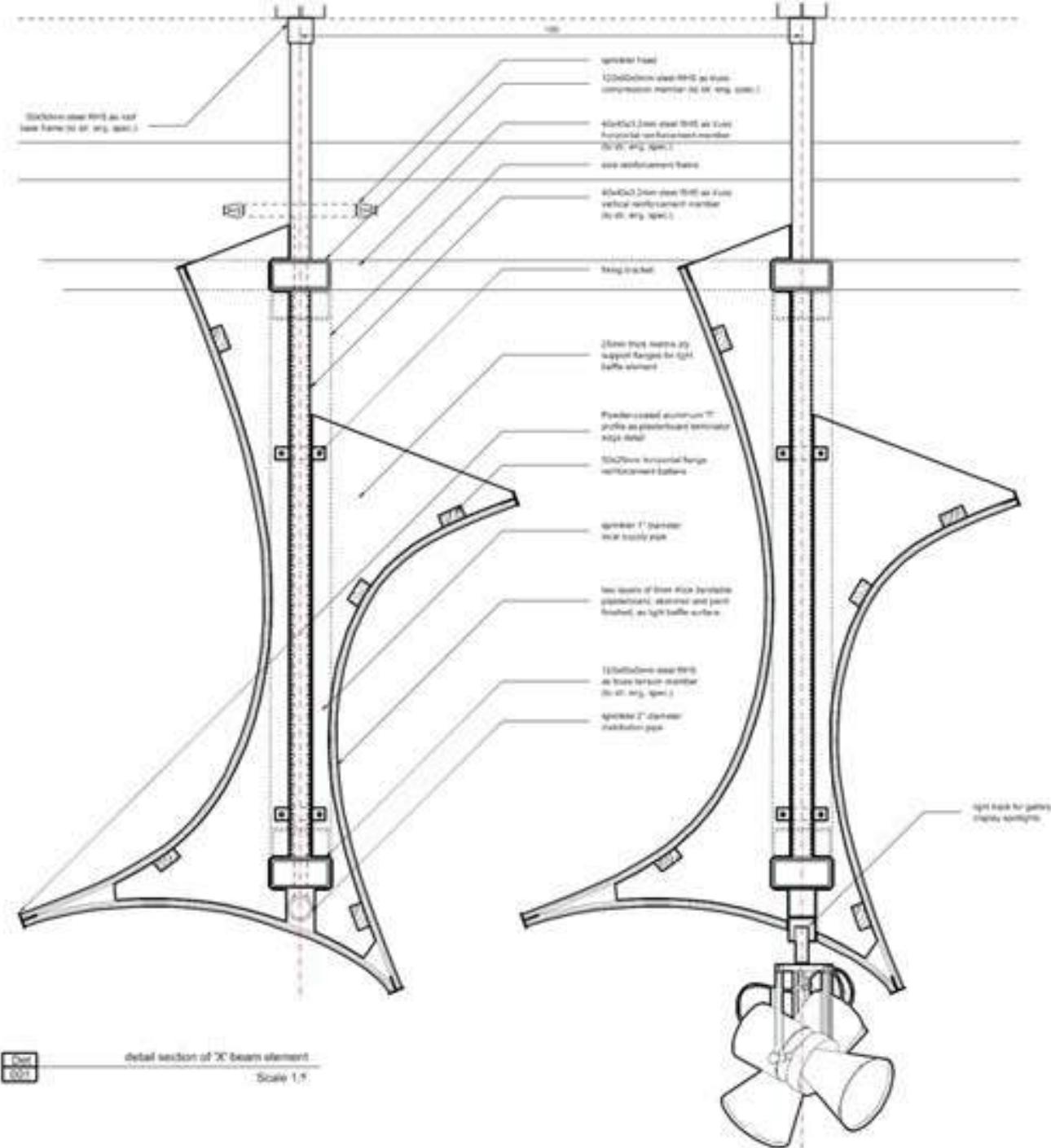
LEVITATE ARCHITECTS
LIBRARY STAIRCASE
LONDRES





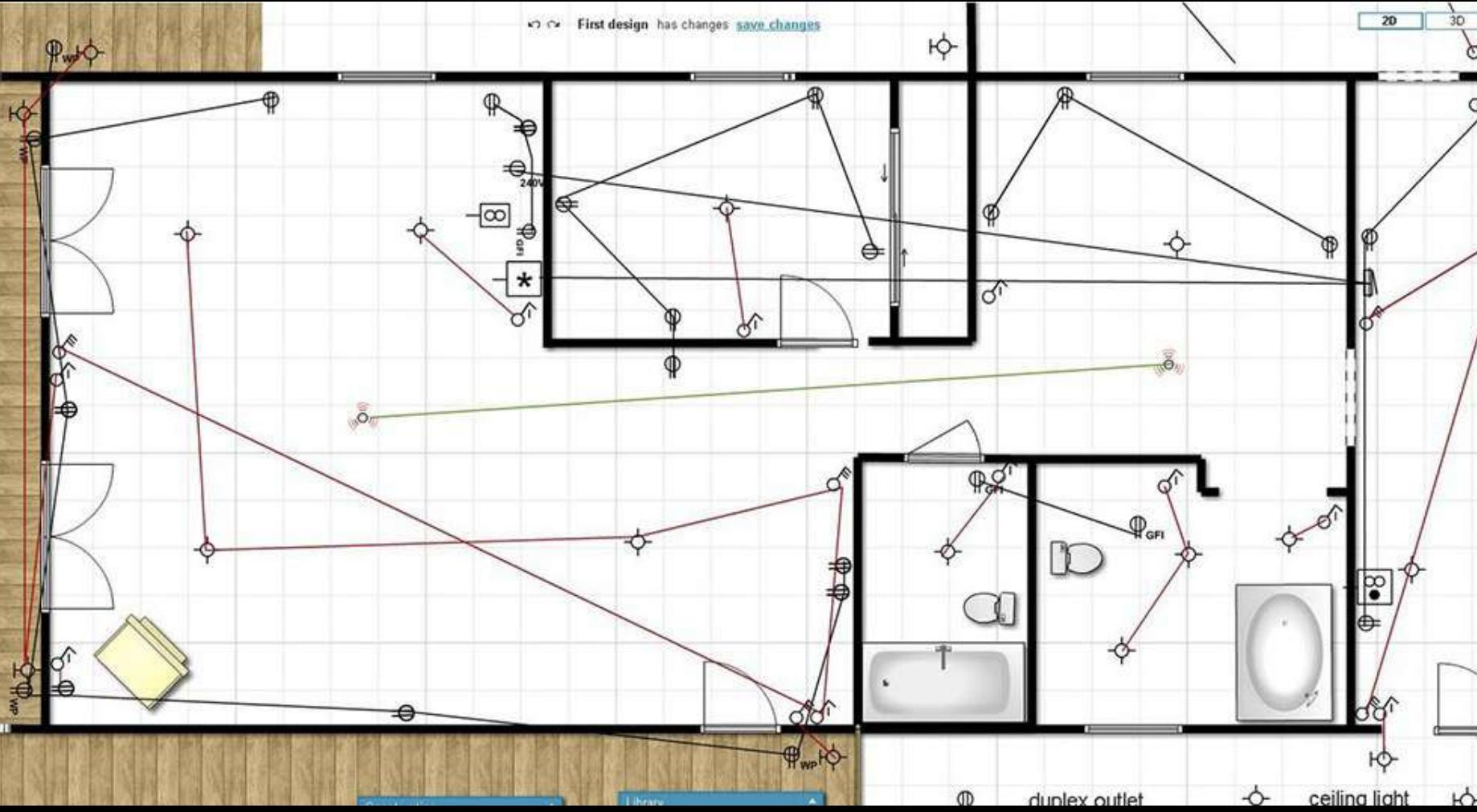


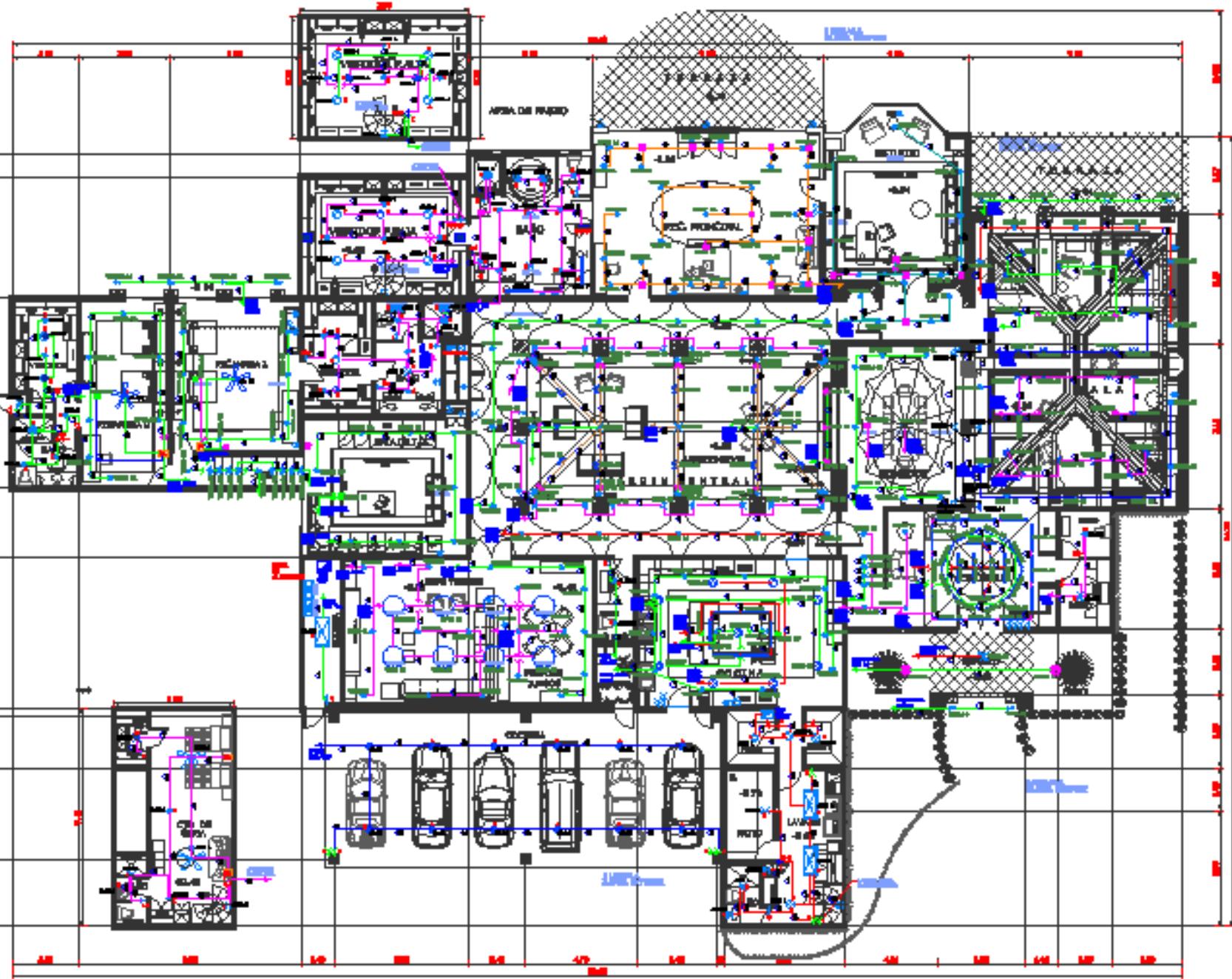


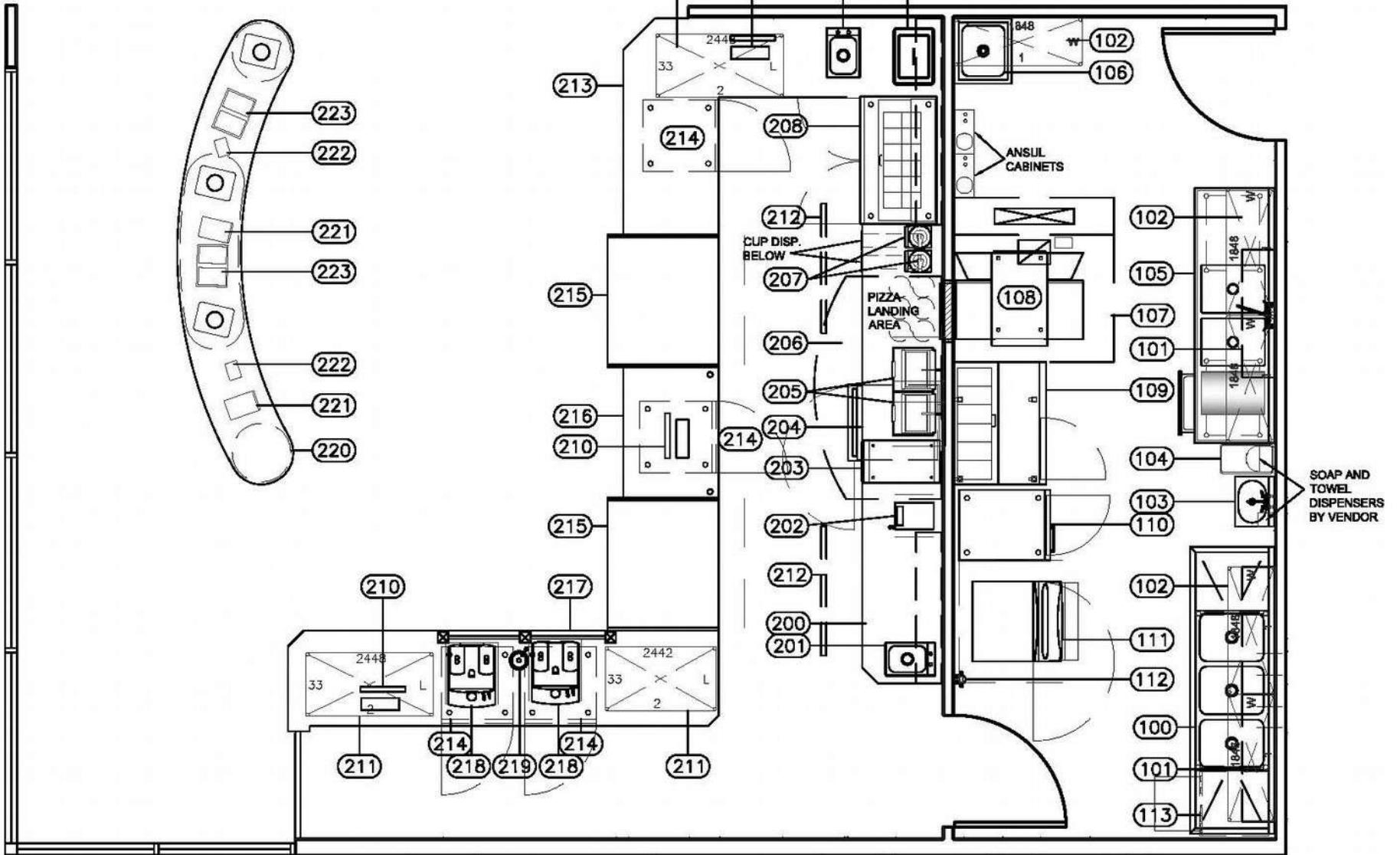


First design has changes [save changes](#)

2D 3D







**drawing notes:**

This Drawing must not be copied, only digital references are allowed if used. Legal and Economic uses are preferred to small scale Drawing in case of discrepancy. This Drawing is the copyright of husband & carpenter. This Drawing should not be used in isolation. If there are any discrepancies, or contradictions between this Drawing and other information, it should be brought to the Architect's attention. Any Advertising Buildings/Landscape Features drawn are for illustrative purposes only and have not been designed to be built. All drawings are the copyright of husband & carpenter Architects Ltd.

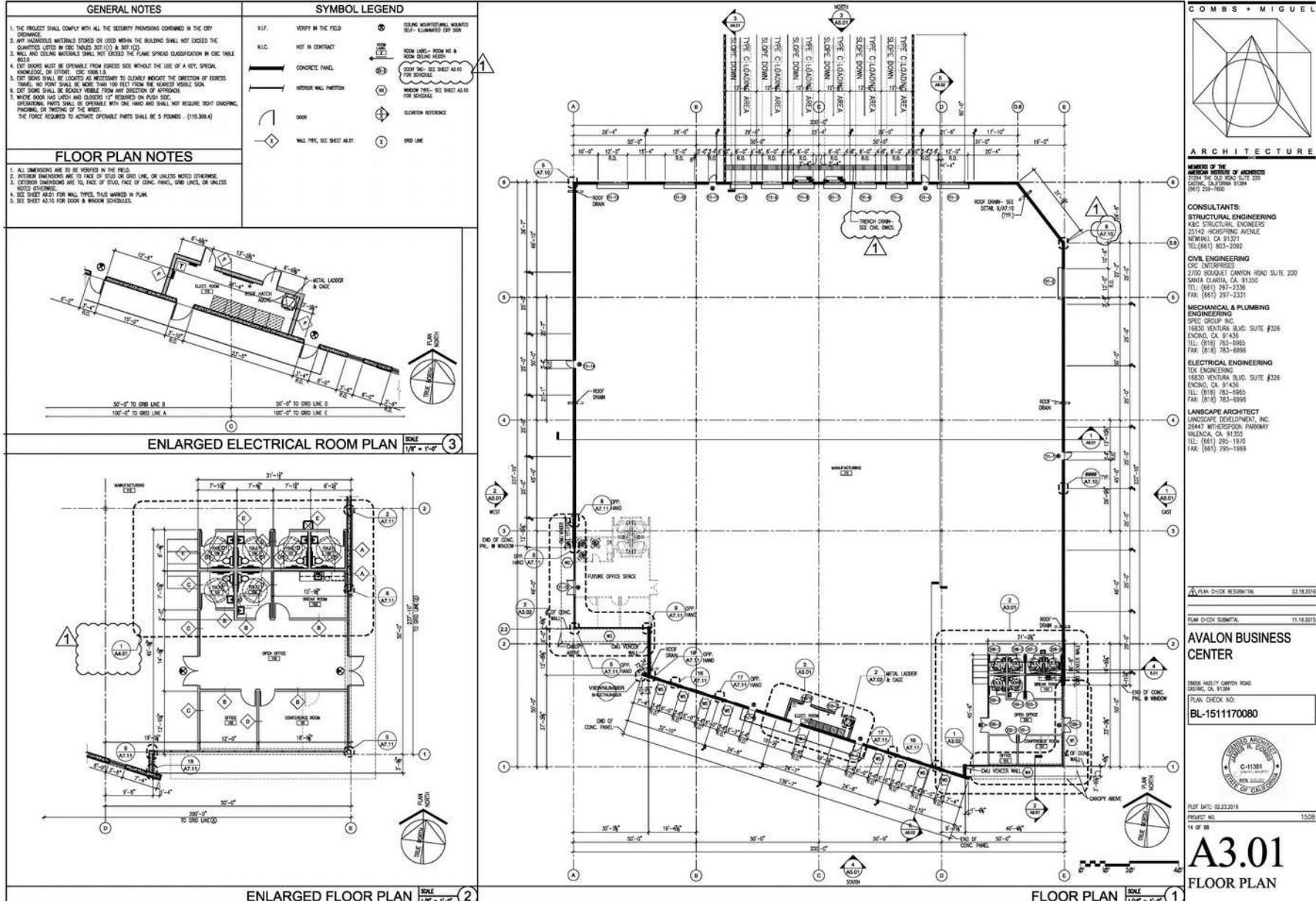
project:

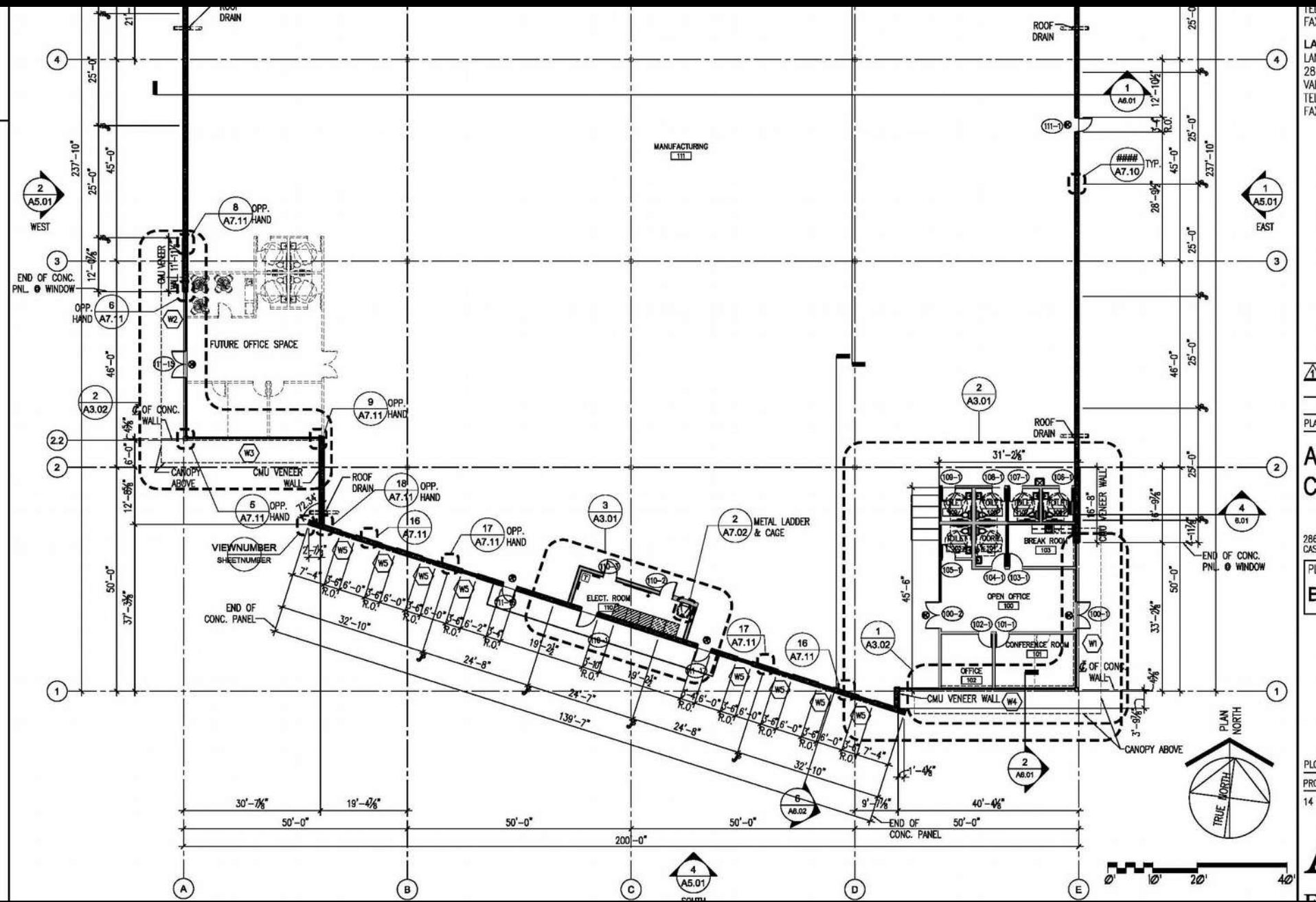
Falcon Road, London SW11

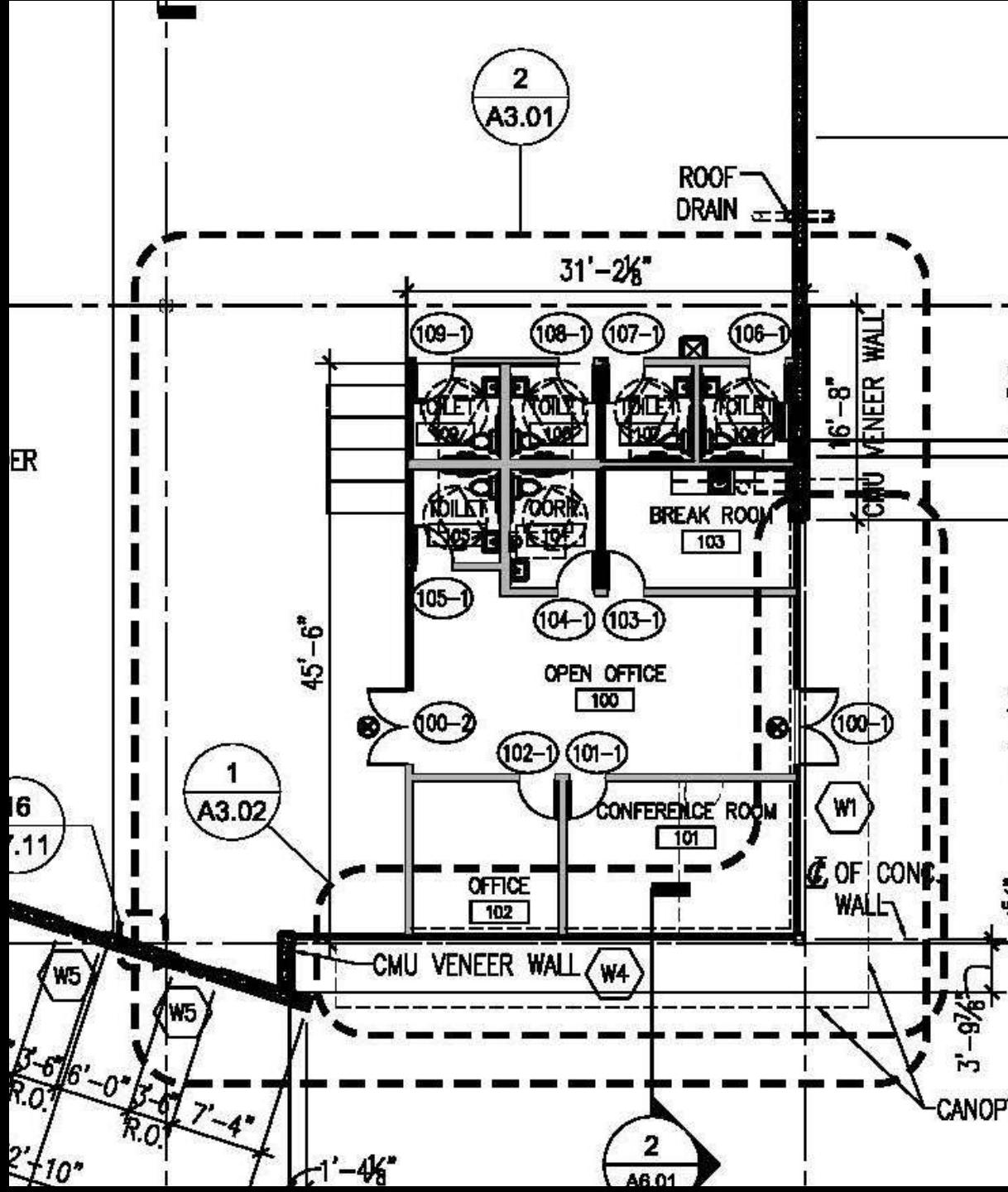
client:

Oak Trading Company Ltd

Revision notes:**drawing title:** Ground Floor Layout**date:** MARCH 2010**scale:** 1:100**project no:** 2122**drawing no:** H/PL_01**revision:**







No.(8)Sub-Textile Factory(Yamethin)

Factory Layout Plan

1920'-0"



420'-0"

265'-0"

670'-0"

565'-0"

769'-0"

Residential

Weaving Factory
400'x200'

Finishing Factory
300'x200'

Store

Store

Store

Waste Water Pool

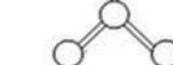
335'-0"

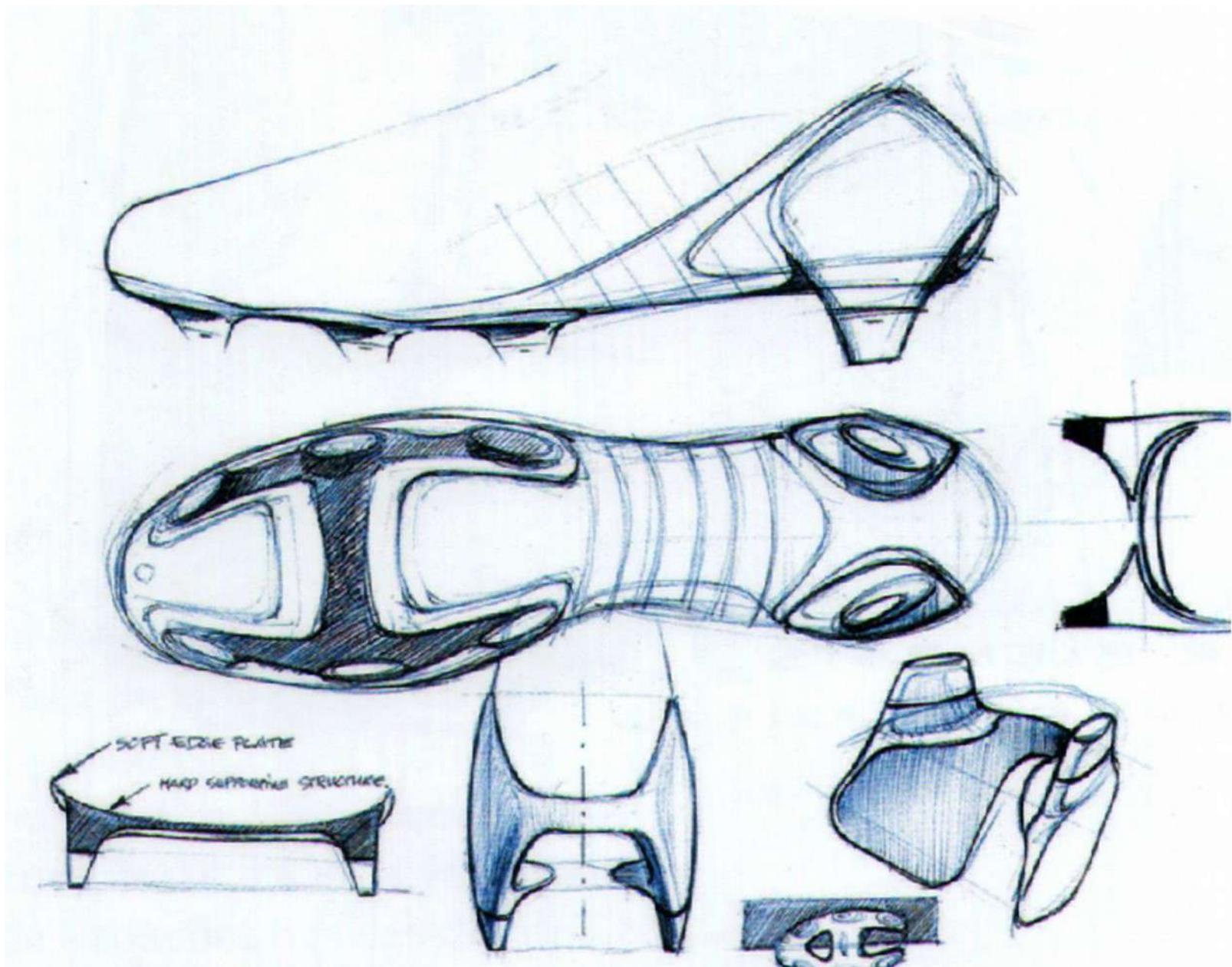
414'-0"

1689'-0"

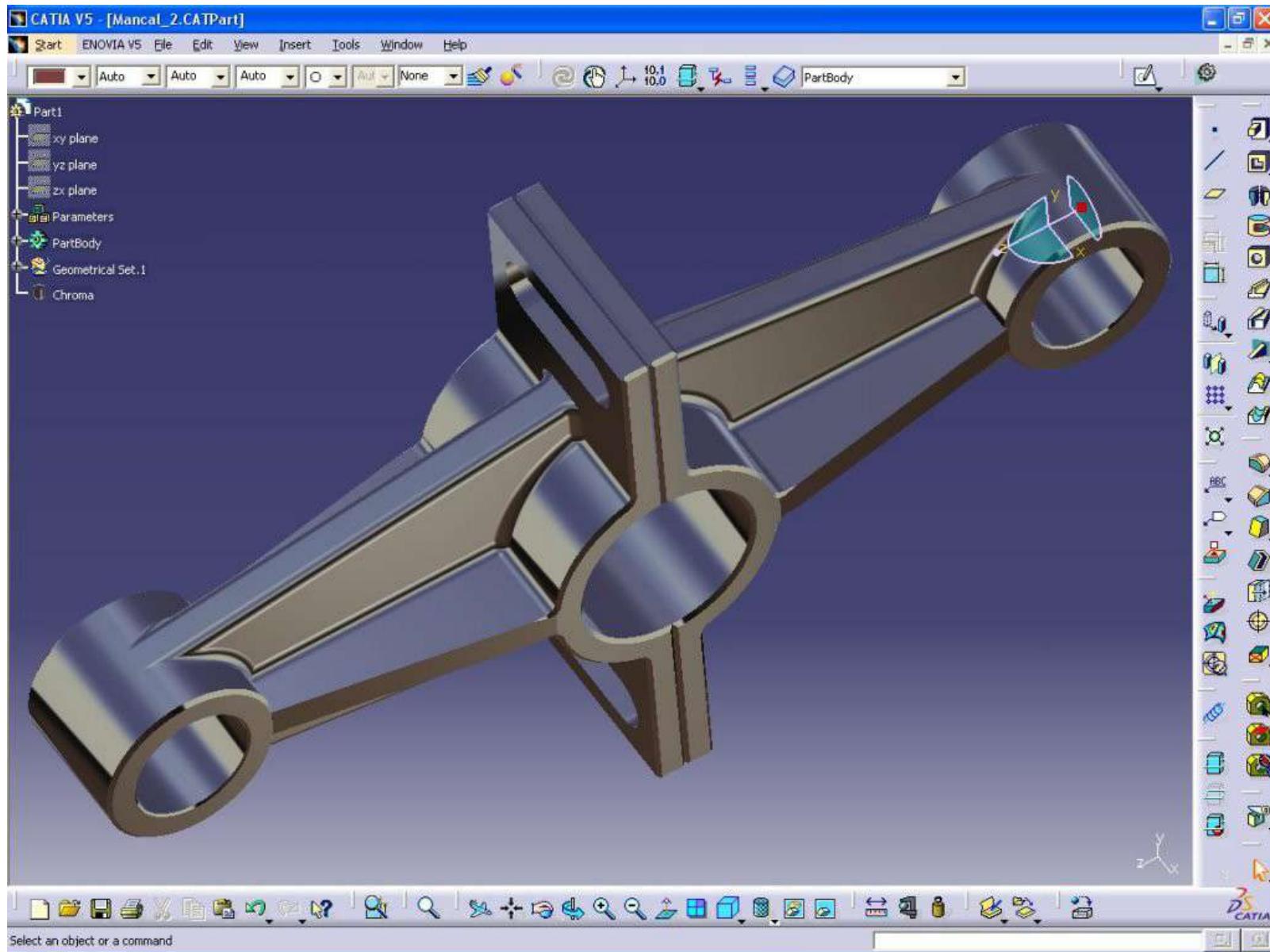
920'-0"

900'-0"

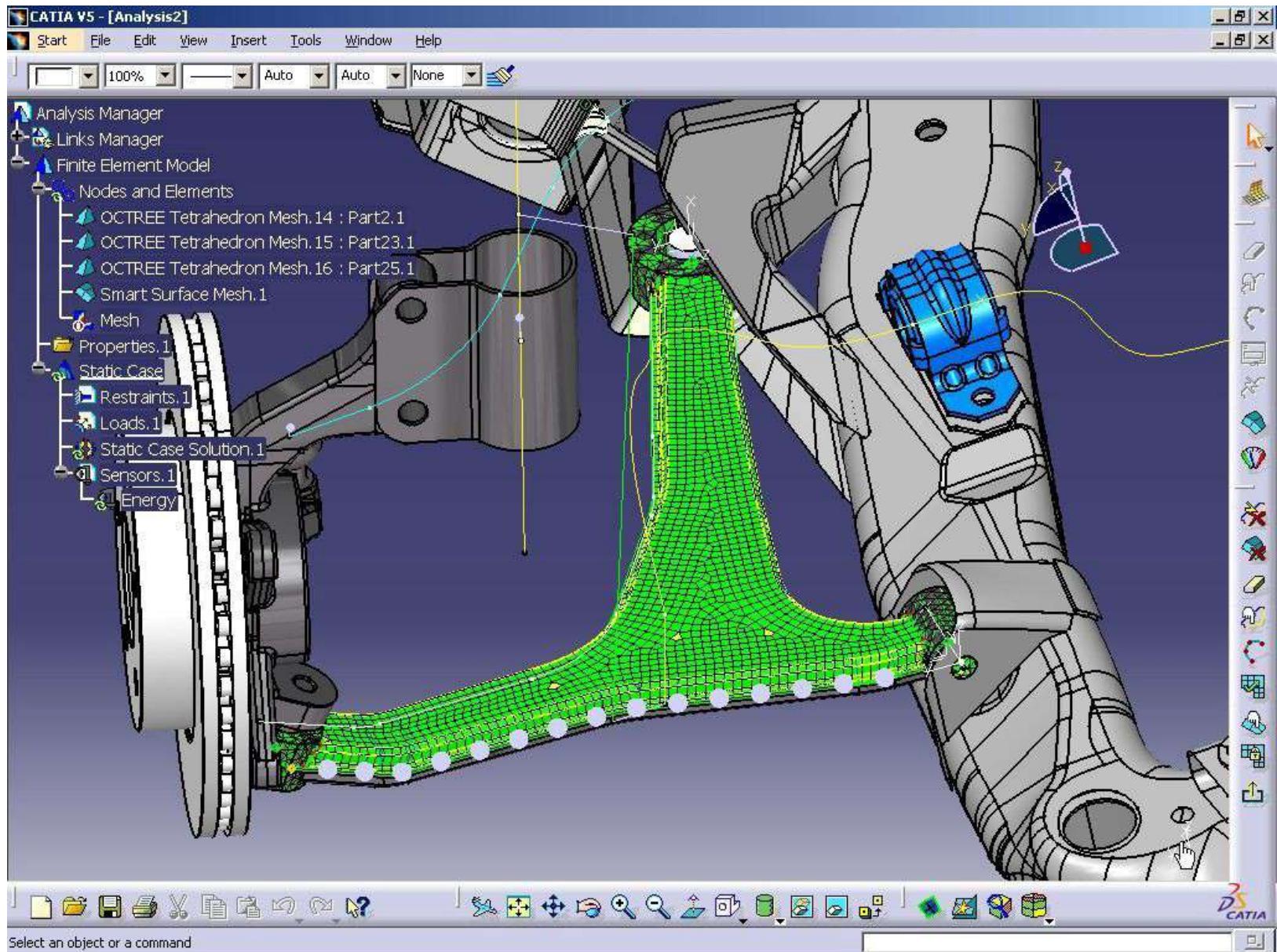




► INTERIOR PLATE MODIFIZIEREN → AUSCHNEIDEN UND EIN TEST-PAAR IN PRB MACHEN LASSEN.



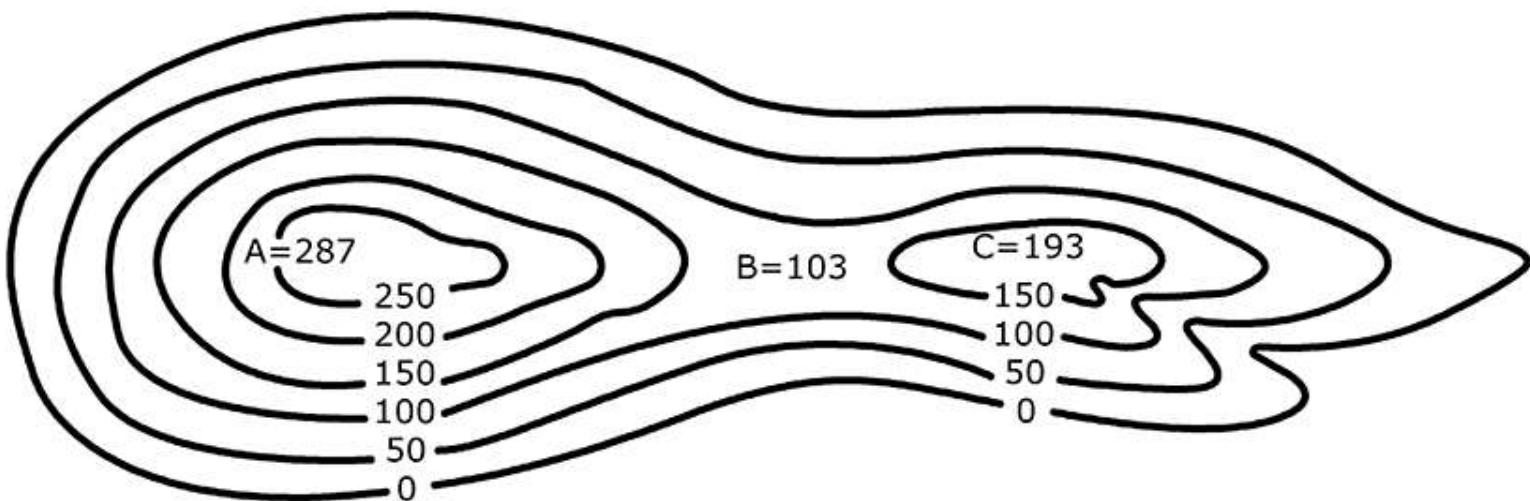
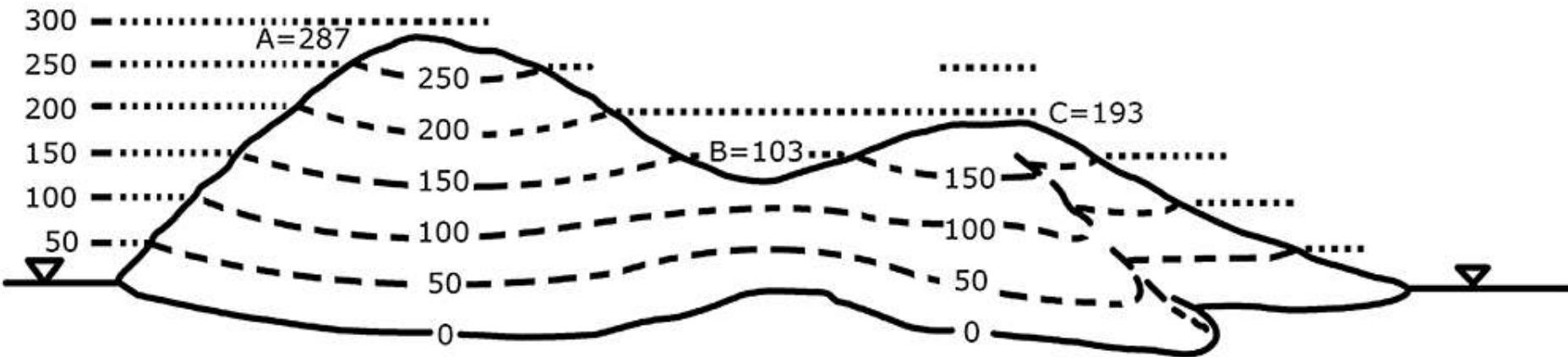
3. PENSAMENTO TRIDIMENSIONAL DO OBJETO.

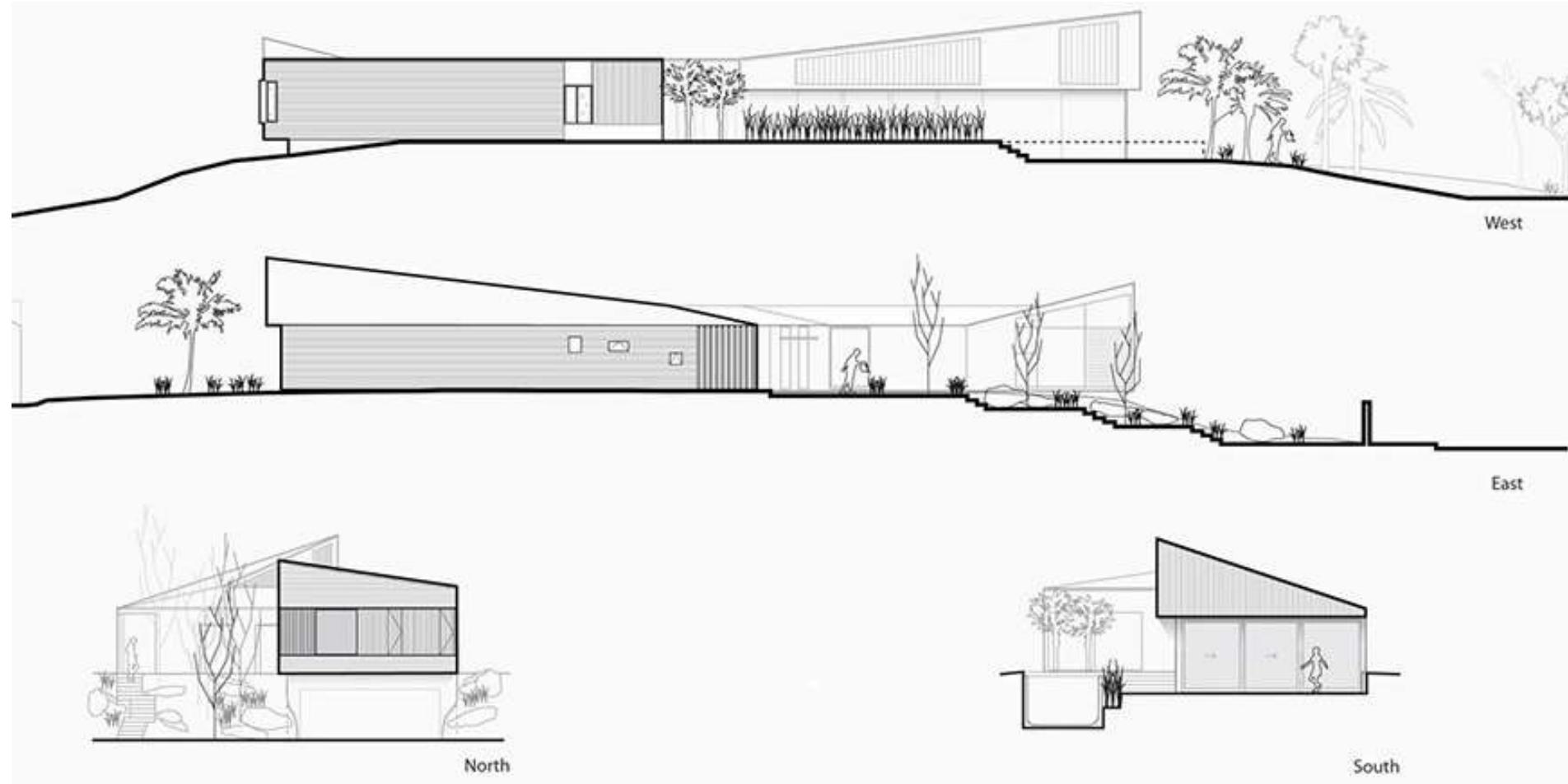


3. PENSAMENTO TRIDIMENSIONAL DO OBJETO.

| ADM | ARQ | BAN | BIO | BQI | BVE |
|------------|------------|------------|------------|------------|------------|
| CCO | CEL | CIS | CIV | COM | DAD |
| DAN | DIR | DPE | EAM | ECD | ECO |
| EDU | EFG | EFI | EIN | ELT | ENA |
| ENF | ENG | ENQ | ENT | EPR | ERU |
| ESM | EST | FIP | FIS | FIT | GEO |
| HIS | INF | LET | MAT | MBI | MEC |
| MED | MOB | NUT | QUI | SEC | SOL |
| TAL | VER | VET | ZOO | | |

4. SUPORTE PARA OUTRAS DISCIPLINAS DE GRADUAÇÃO (CIV, EAL, ARQ, EAM, MEC, ETC...)





ARQ 201 – REPRESENTAÇÃO GRÁFICA PARA ENGENHARIAS

TEORIA DA REPRESENTAÇÃO

- METODOLOGIA DE REPRESENTAÇÃO NO ESPAÇO;
- ELEMENTOS DA REPRESENTAÇÃO;
- PROBLEMAS ENVOLVENDO A GEOMETRIA E NOÇÕES DE PROJETO.

PRÁTICA DE PRANCHETA

- NORMATIZAÇÃO TÉCNICA PARA DESENHO DE PEÇAS;
- METODOLOGIA TRADICIONAL DE DESENHO;
- PRANCHETA, LAPISEIRA E ESQUADROS;

PRÁTICA DE COMPUTADOR

- NORMATIZAÇÃO TÉCNICA PARA DESENHO DE CONSTRUÇÕES;
- USO DO SOFTWARE AUTOCAD®;
- COMPUTADORES PESSOAIS OU DO LABORATÓRIO;



MONITORIA

OBJETIVOS

- AUXÍLIO NO DESENVOLVIMENTO DE TRABALHOS PRÁTICOS
- AUXÍLIO NO DESENVOLVIMENTO DE EXERCÍCIOS TEÓRICOS
- TERAPIA OCASIONAL

HORÁRIOS

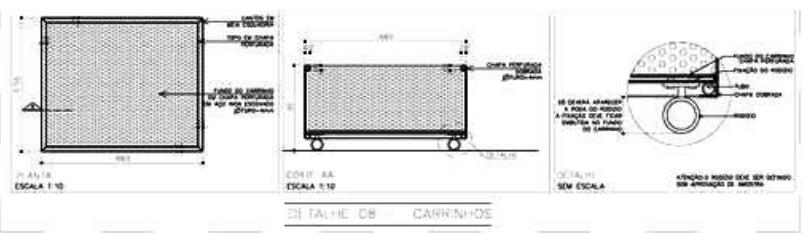
(A CONFIRMAR)

PLANO DE ENSINO/ CONTEÚDO PROGRAMÁTICO/ PROGRAMA DA DISCIPLINA (DISPONÍVEL NO PVANET)

An architectural drawing of a building facade featuring large, bold letters 'A', 'R', and 'Q' overlaid on the drawing. The drawing includes various technical details such as 'VISTA ESCALA 1:2', 'DETALHE 01 - MURETOS', 'DETALHE 02 - PAREDE VERTICAL', 'DETALHE 03 - PAREDE VERTICAL', 'DETALHE 04 - MURETOS', 'DETALHE 05 - PAREDE VERTICAL', 'DETALHE 06 - PAREDE VERTICAL', 'DETALHE 07 - PAREDE VERTICAL', 'DETALHE 08 - PAREDE VERTICAL', 'DETALHE 09 - BANCADA', and 'DETALHE 10 - PAREDE VERTICAL'. The letters are filled with black and white patterns, and the background shows a grid and various structural elements.

A large, bold, black font number "2021" is centered over a technical architectural drawing. The drawing features various lines, text labels like "ELEVATION", "SECTION", and "PLAN", and small diagrams. The "2" includes a vertical line on its right side, and the "1" has a vertical line on its left side, creating a visual connection between the numbers.

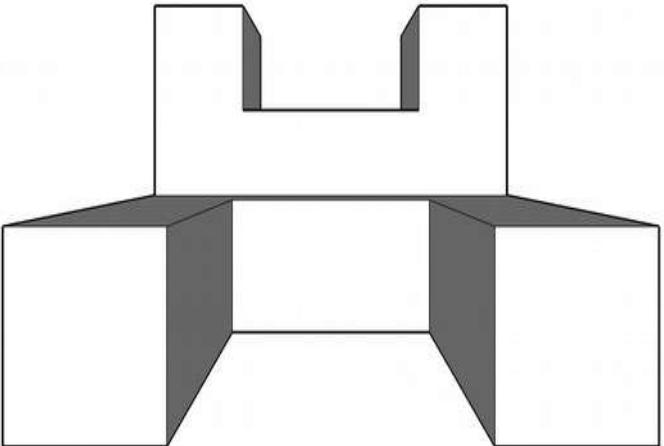
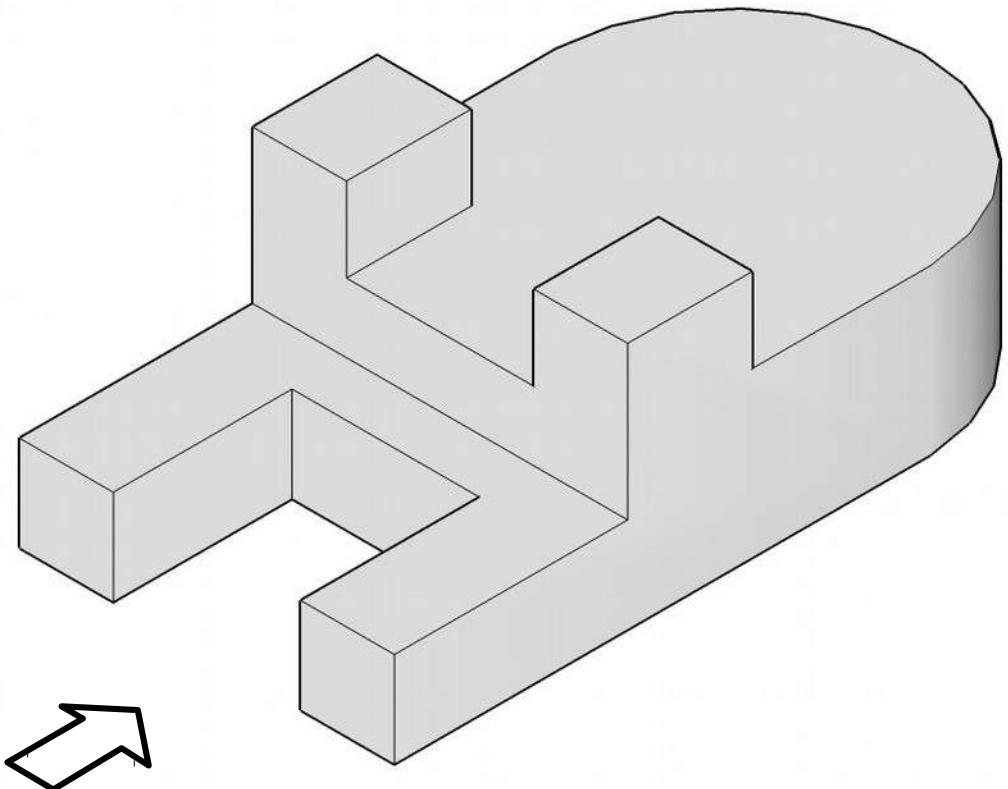
PERSPECTIVA ISOMÉTRICA



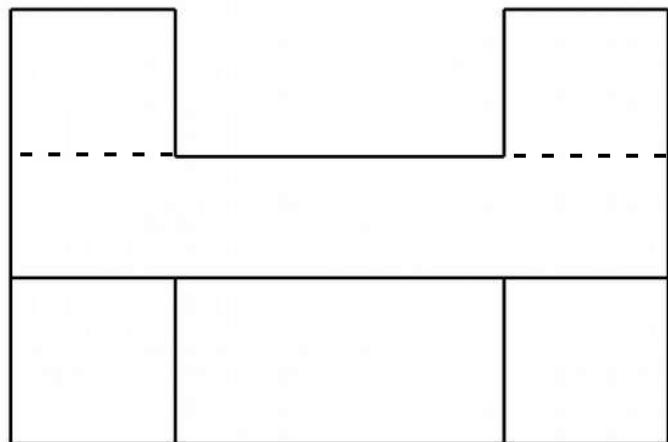
CONCEITOS INICIAIS

PERSPECTIVA ISOMÉTRICA

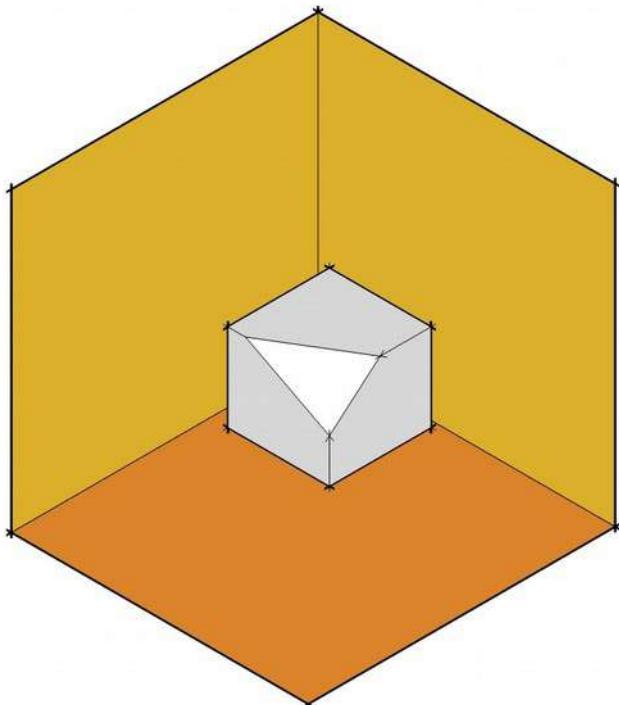
DIFERENÇA ENTRE PROJEÇÃO E PERSPECTIVA



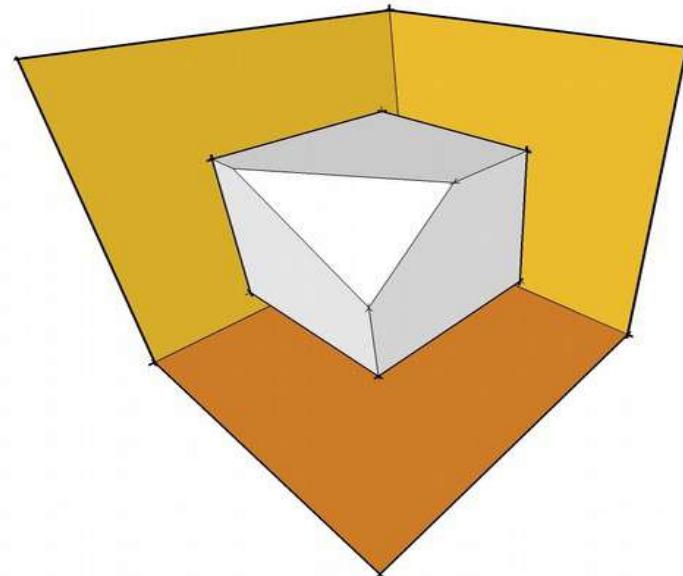
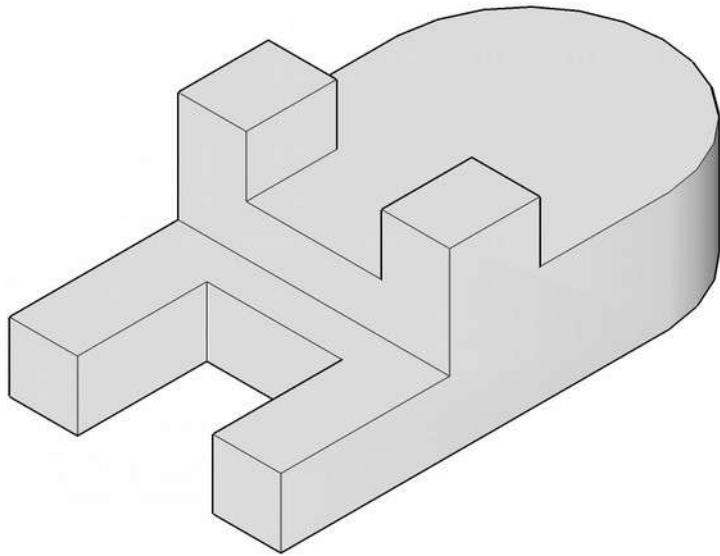
PERSPECTIVA SIMPLES



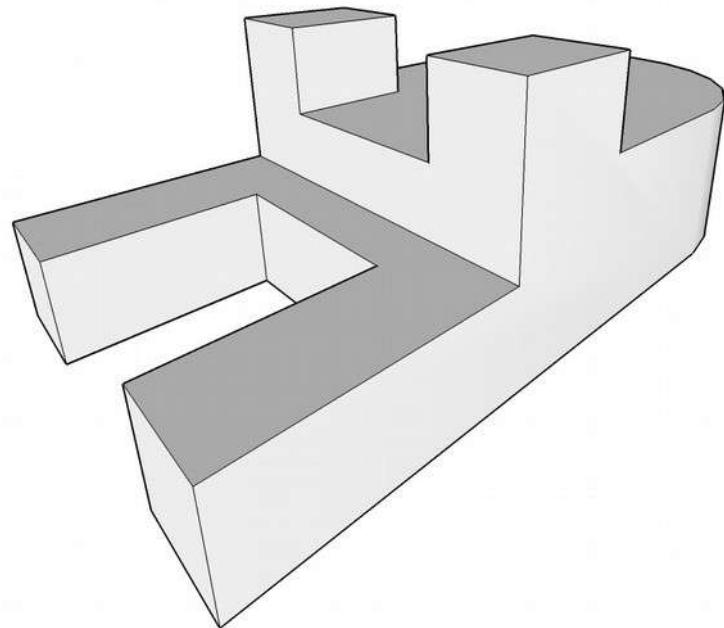
PROJEÇÃO CILÍNDRICA ORTOGONAL



PERSPECTIVA ISOMÉTRICA



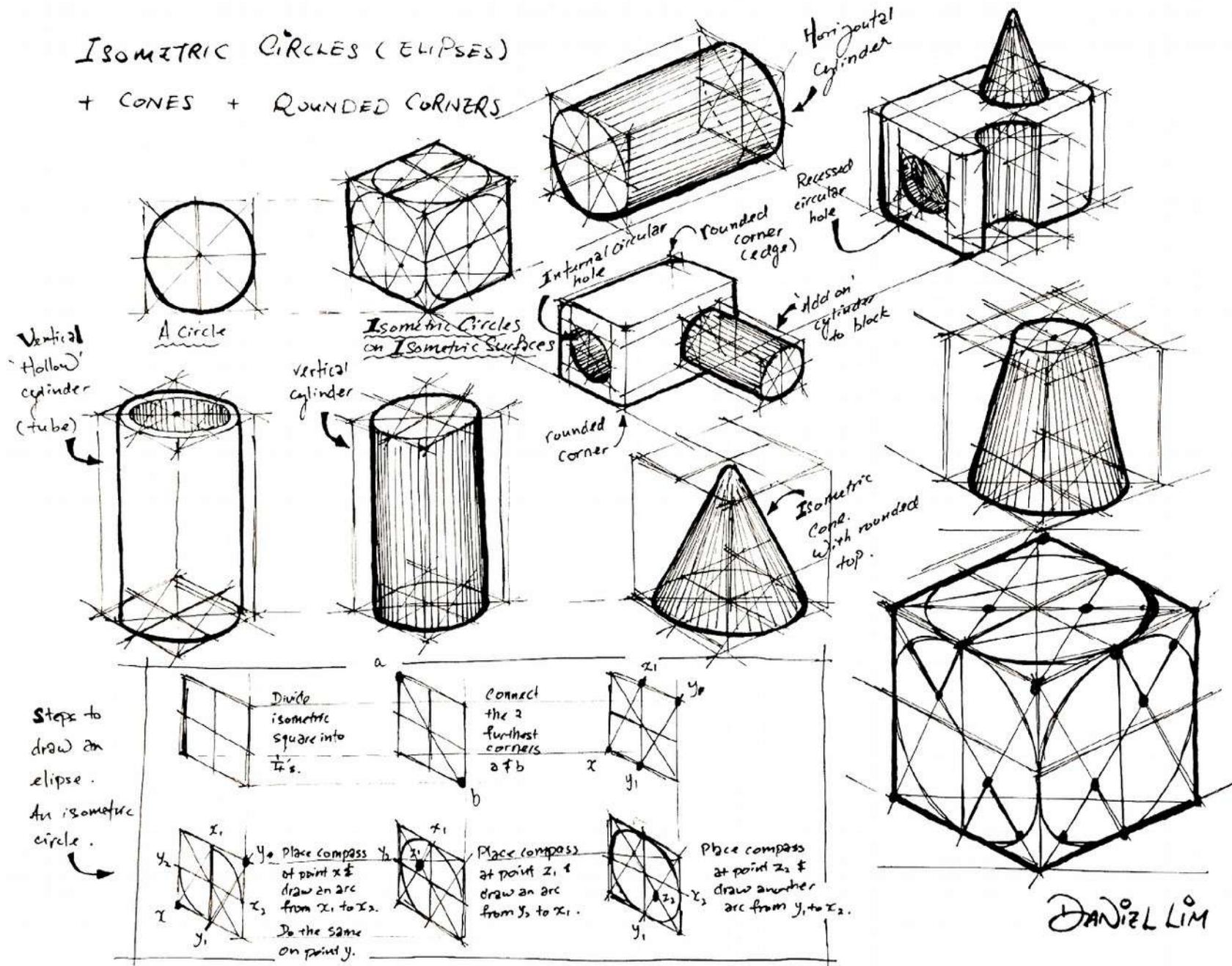
PERSPECTIVA AXONOMÉTRICA



Perspectiva isométrica: estudos de geometrias

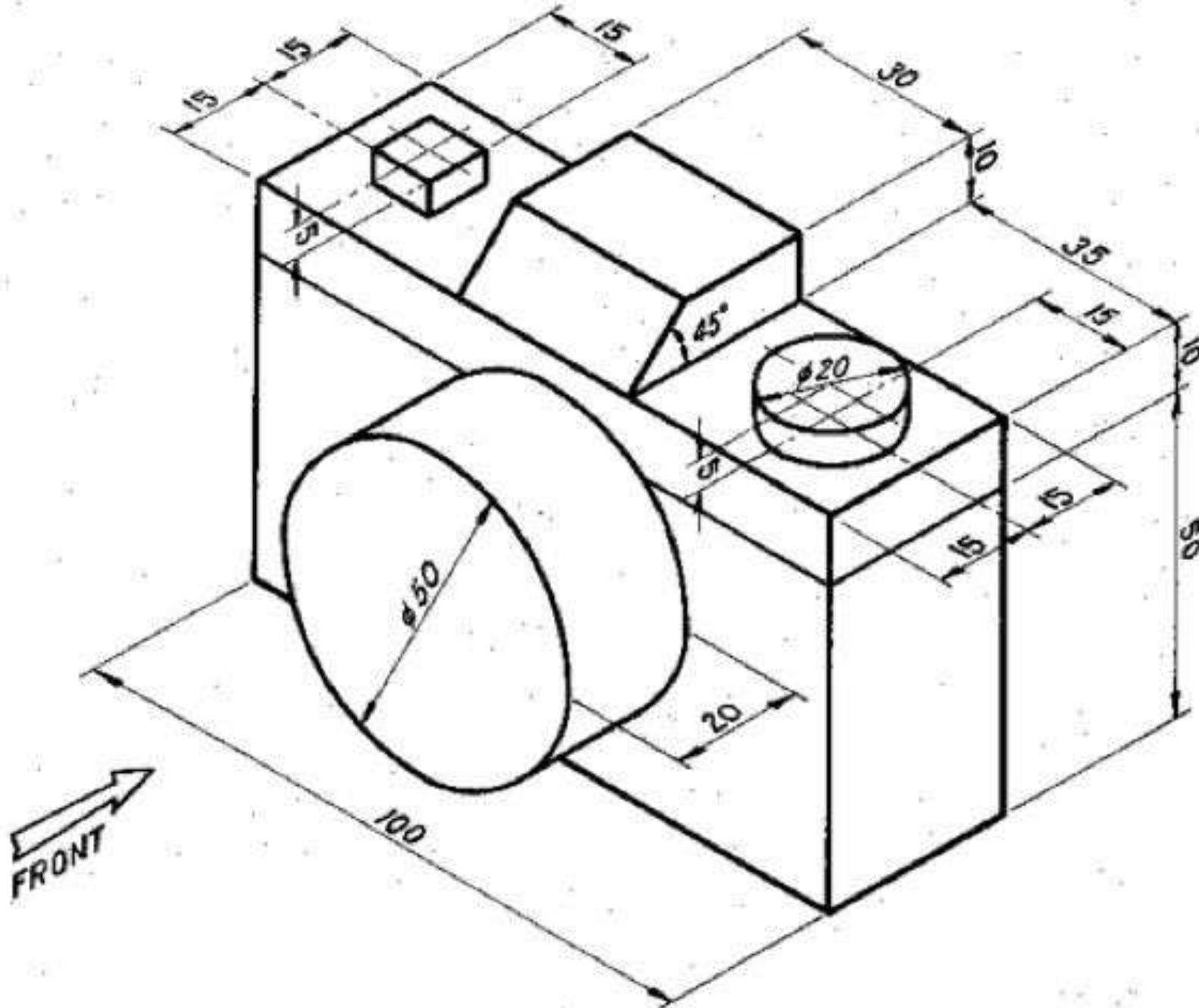
ISOMETRIC CIRCLES (ELIPSSES)

+ CONES + ROUNDED CORNERS

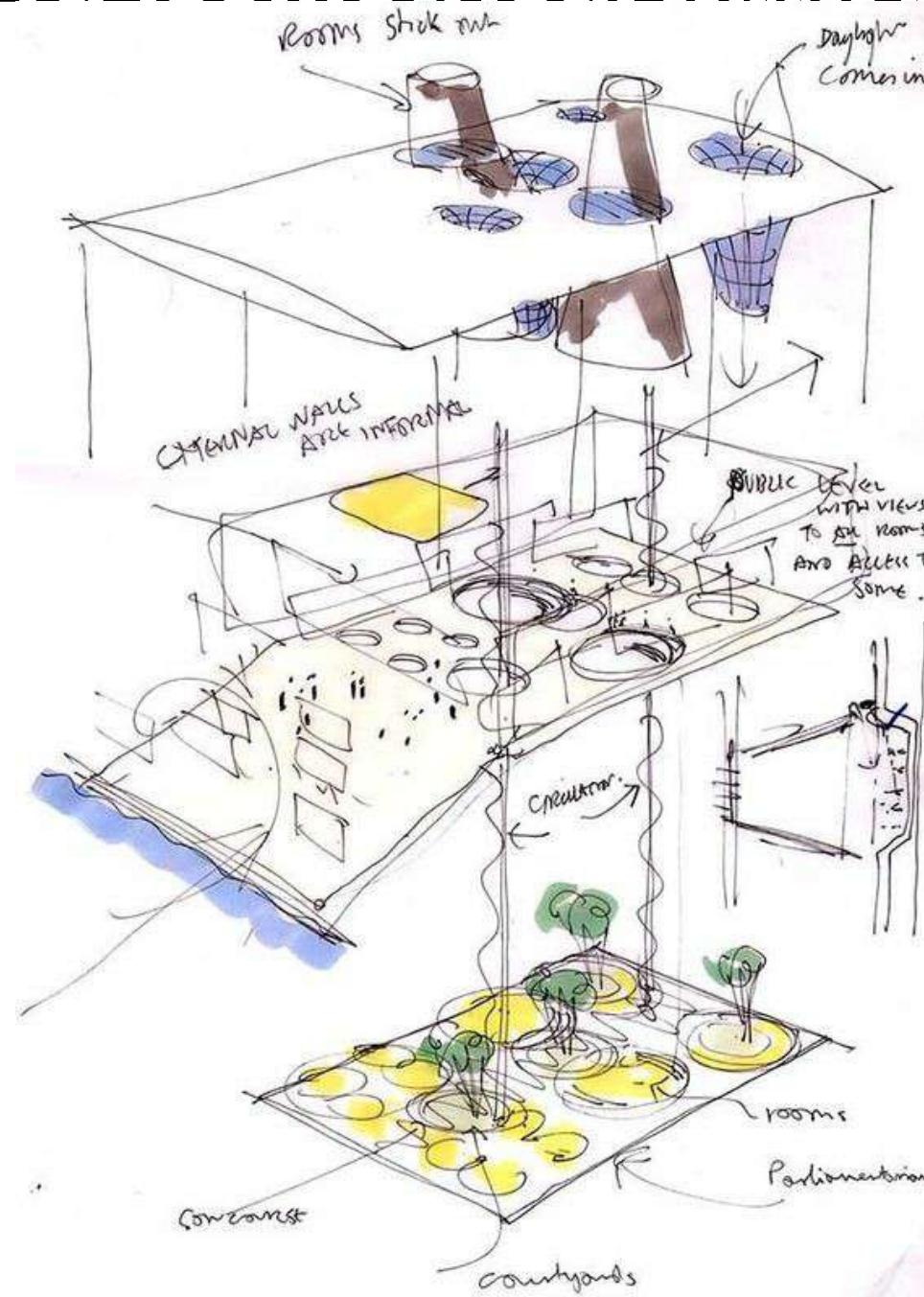


DANIEL LIM

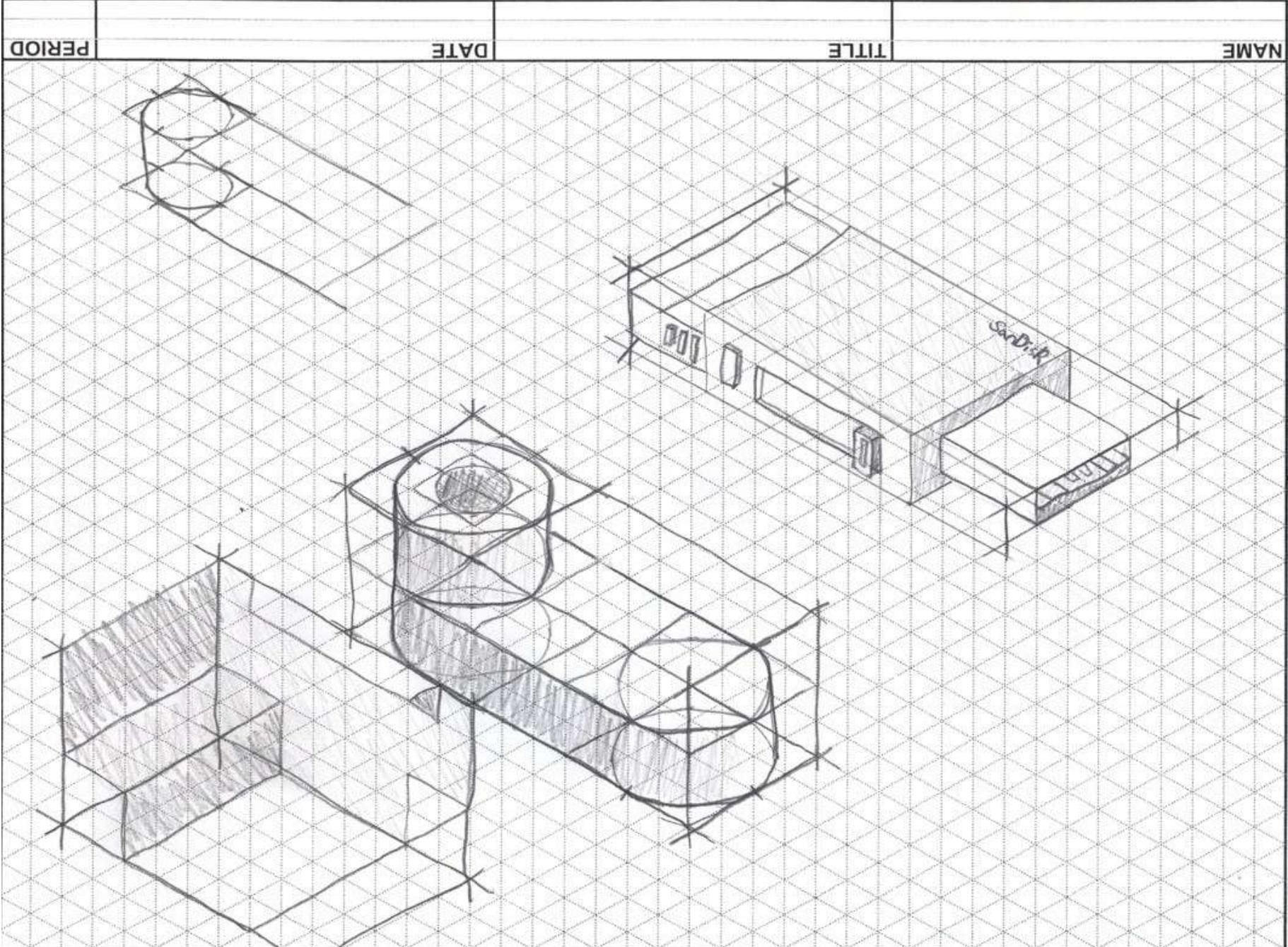
Perspectiva isométrica: estudos de geometrias



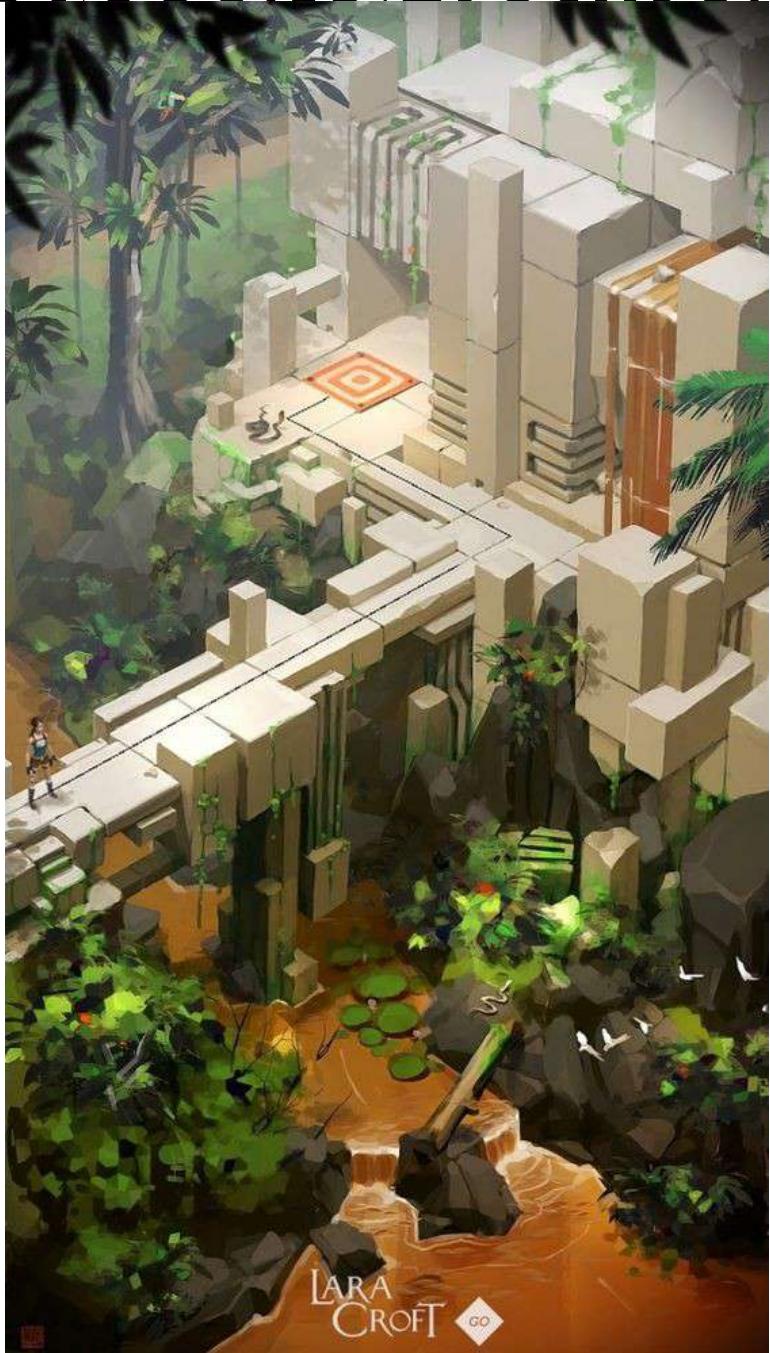
Perspectiva isométrica: estudos de geometrias



Perspectiva isométrica: estudos de aeometrias



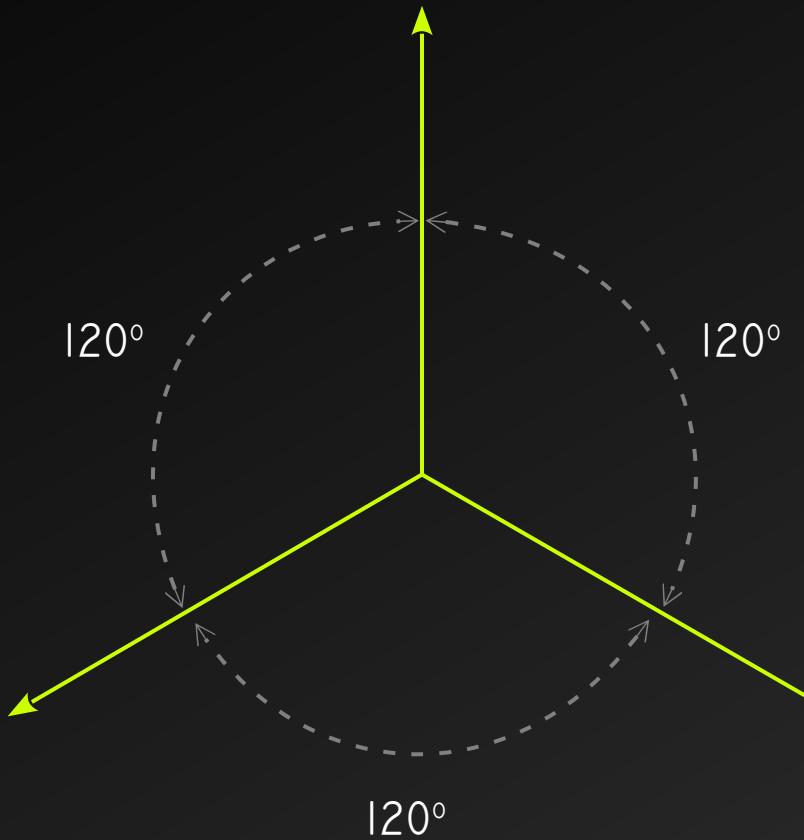
Perspectiva isométrica: estudos de geometrias

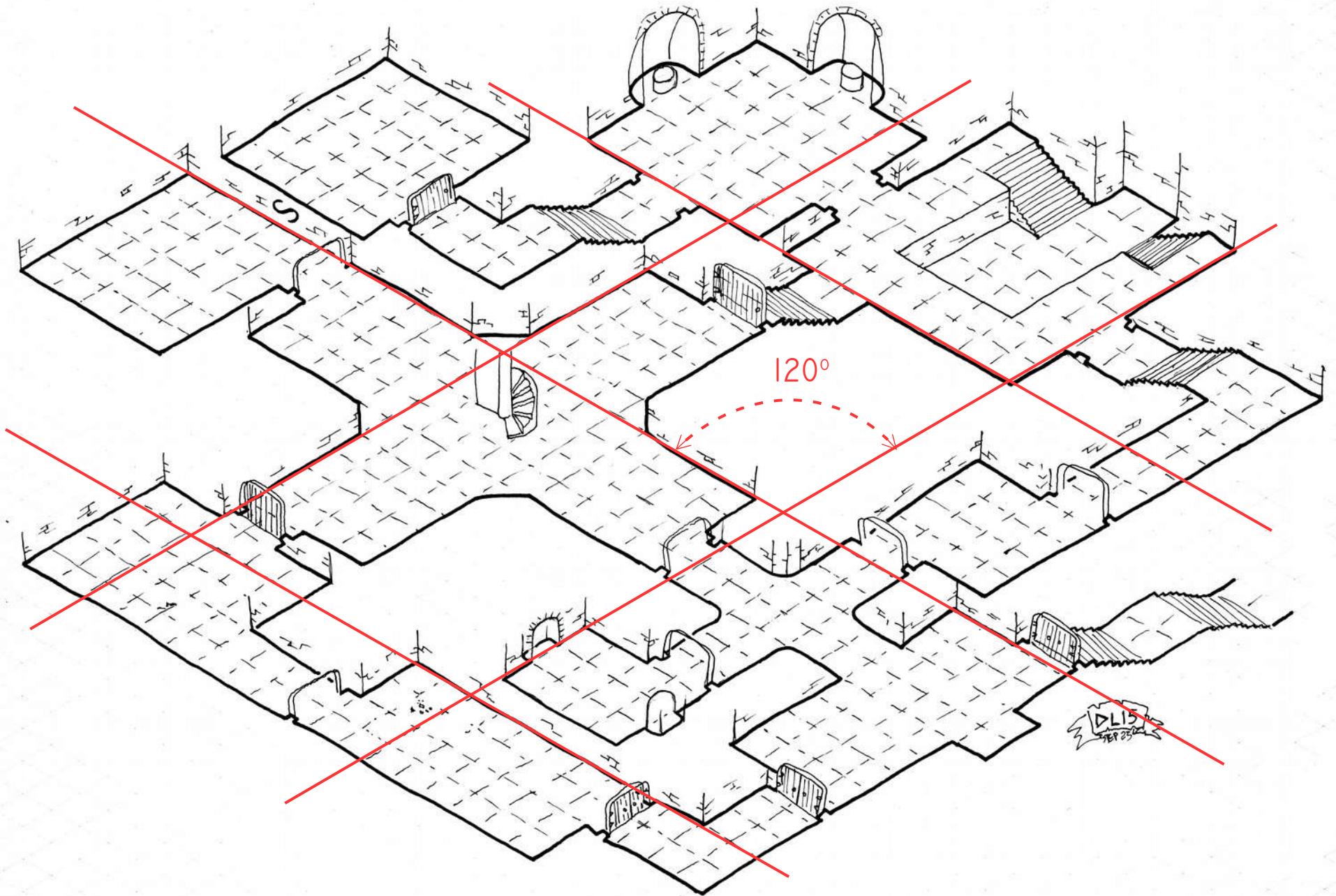


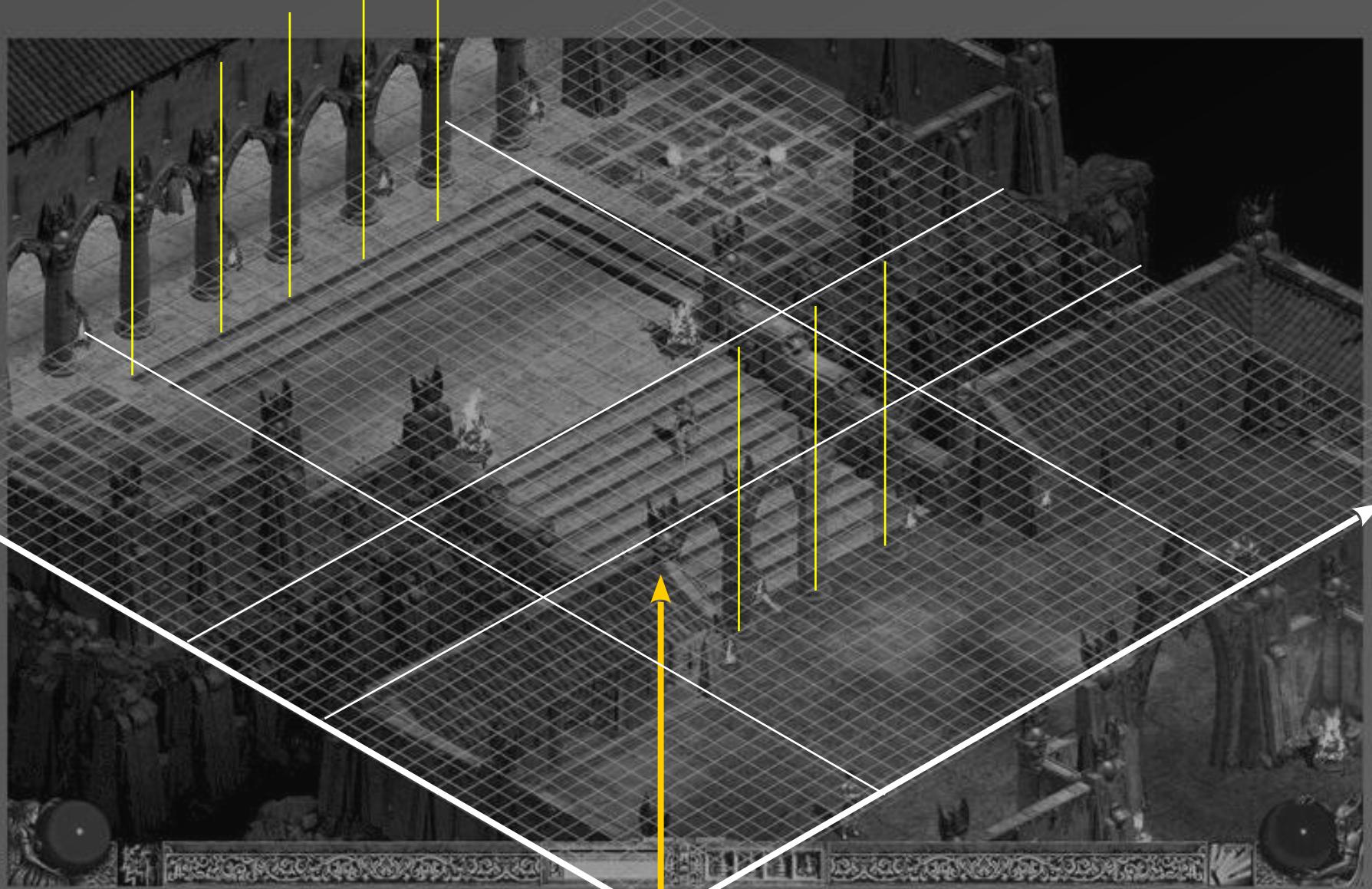
Perspectiva isométrica: estudos de geometrias



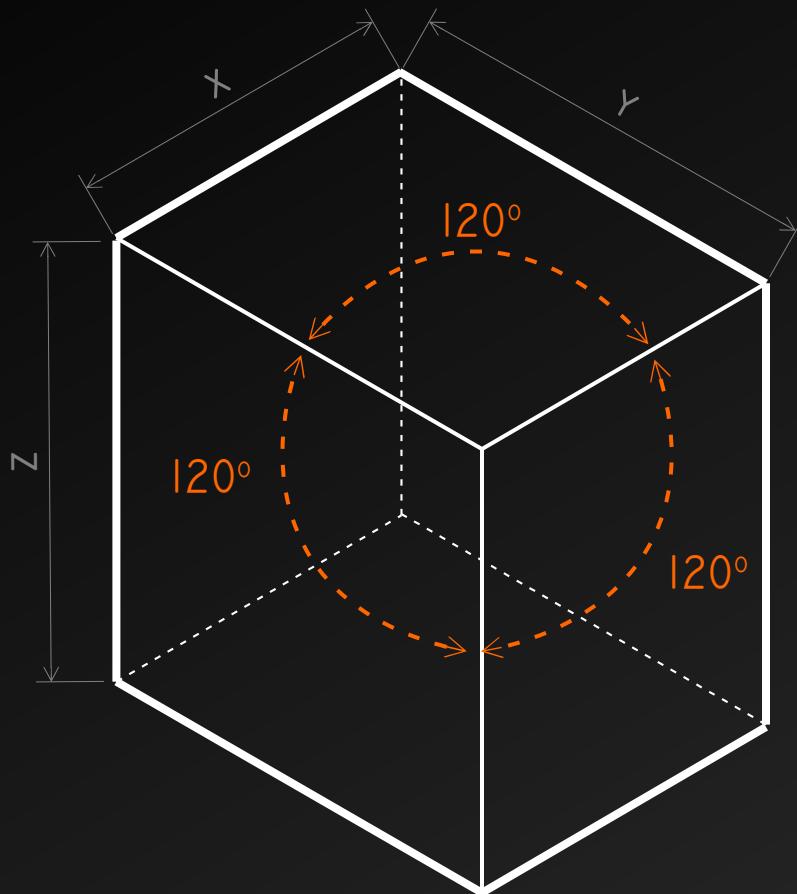
PERSPECTIVA ISOMÉTRICA



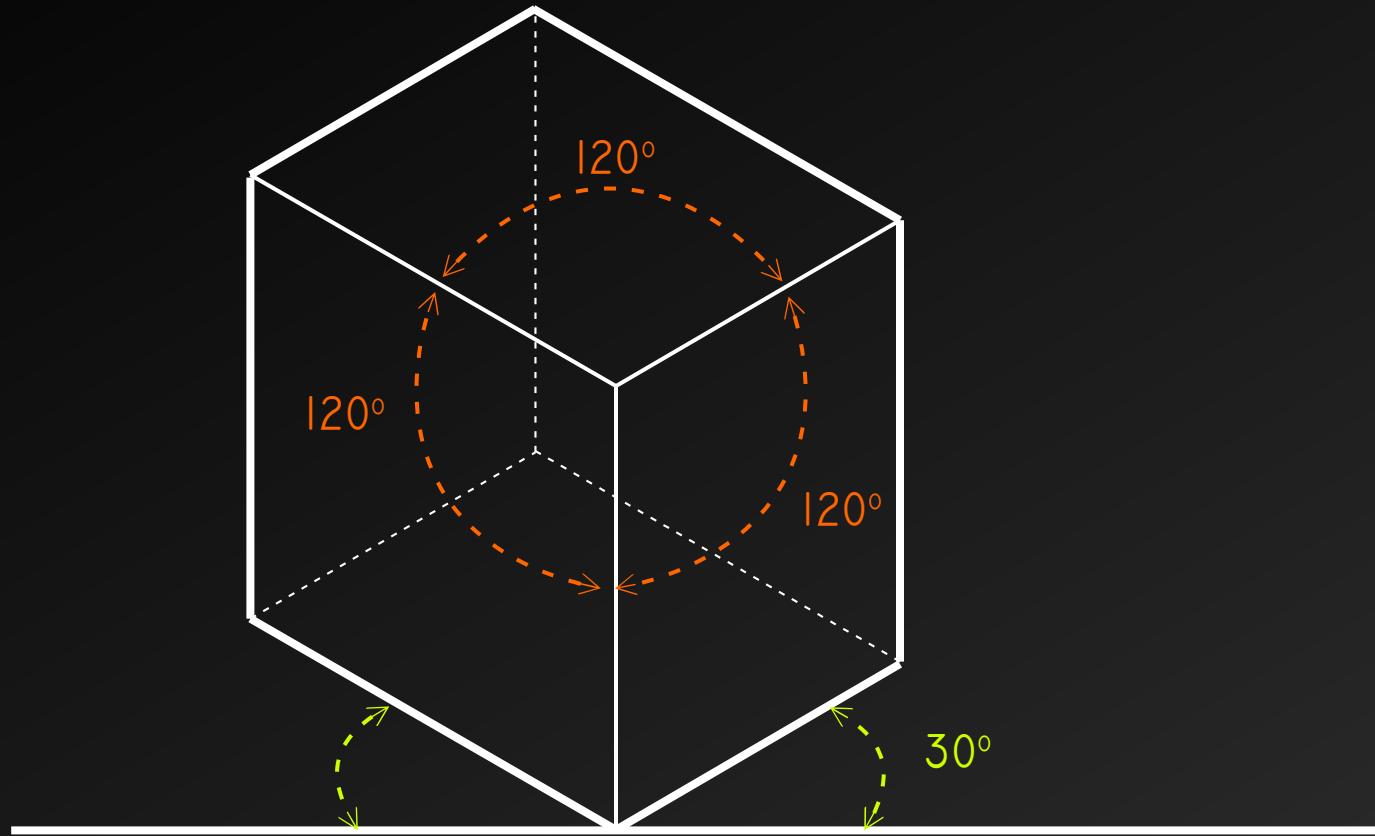




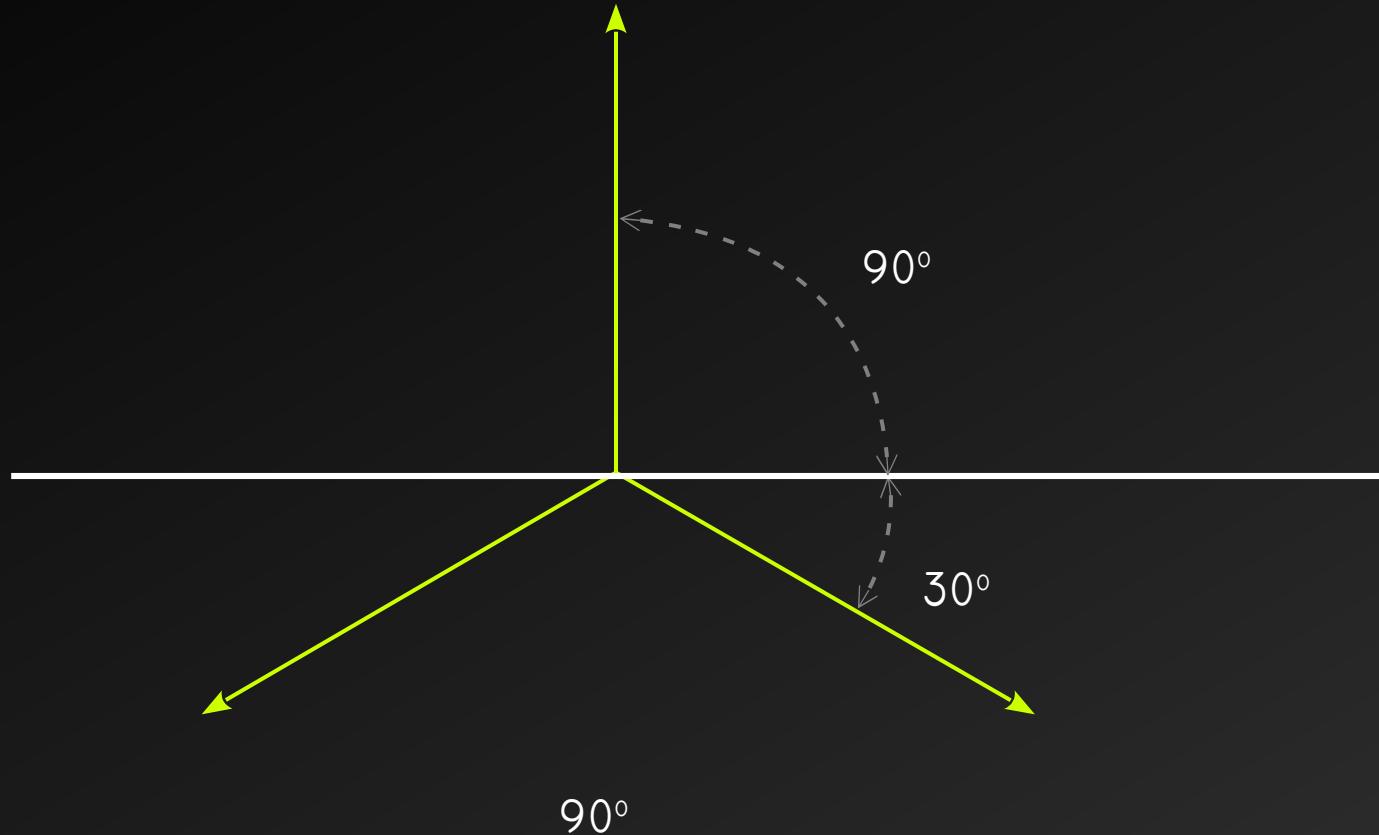
REPRESENTAÇÃO EM PERSPECTIVA ISOMÉTRICA



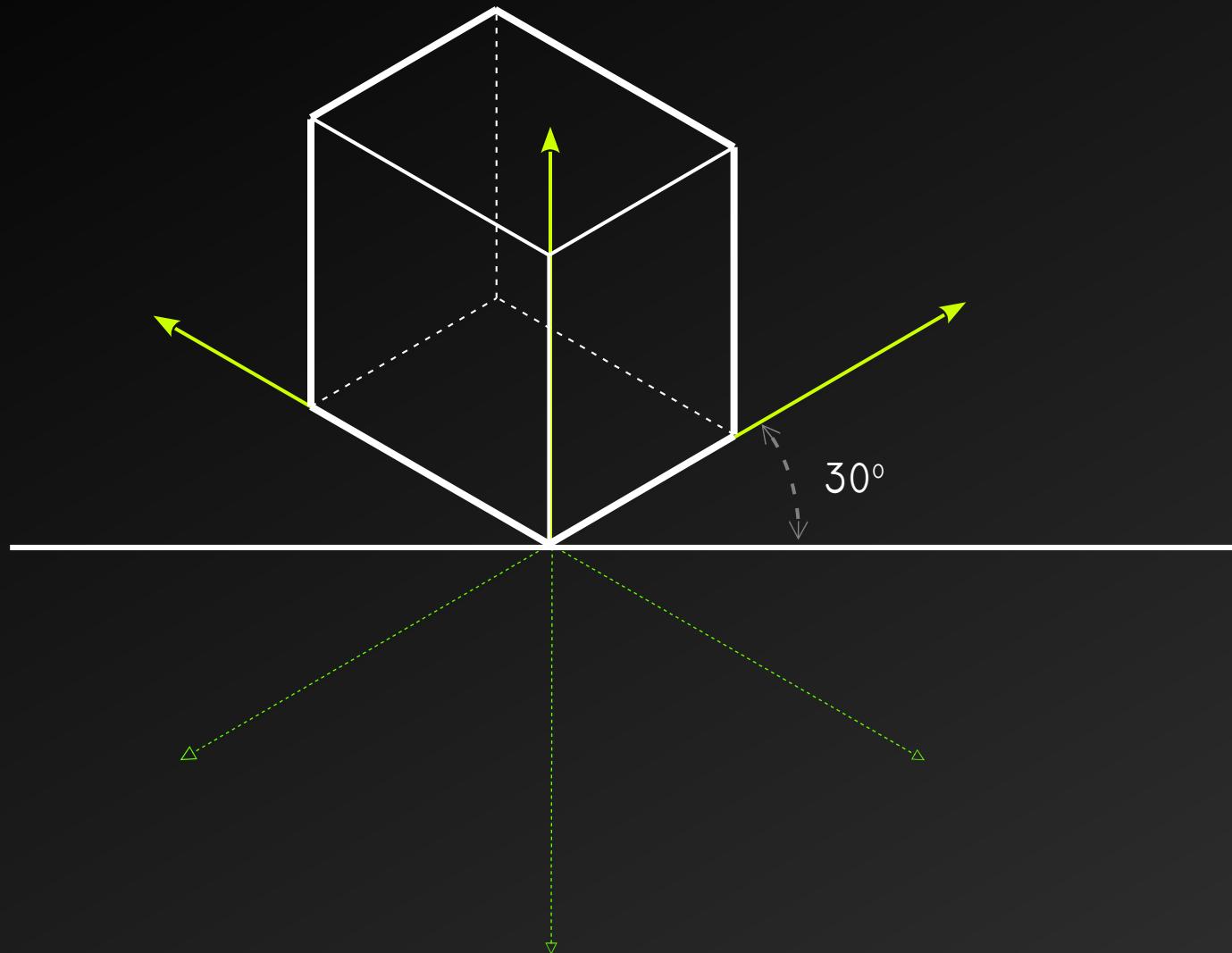
REPRESENTAÇÃO EM PERSPECTIVA ISOMÉTRICA

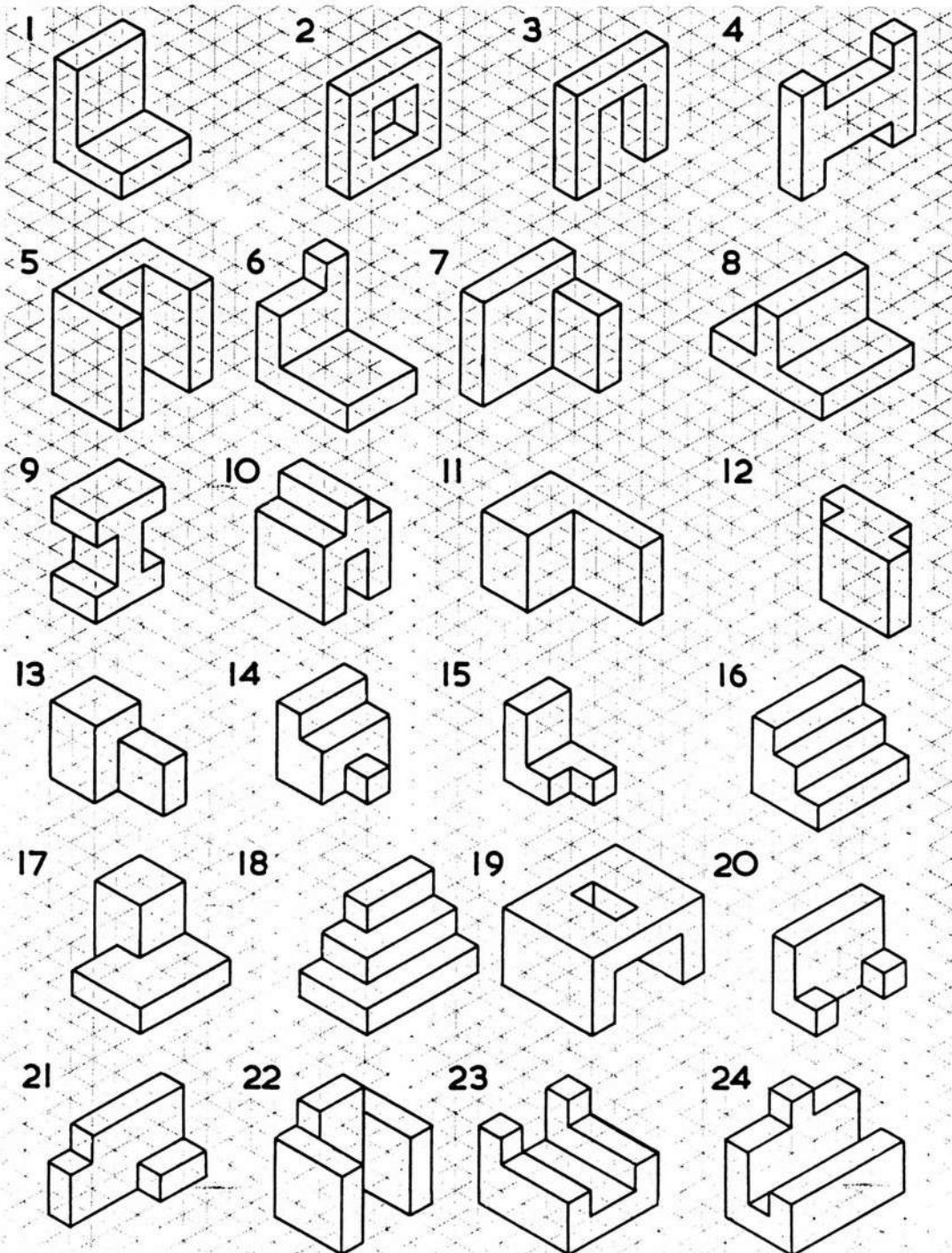


REPRESENTAÇÃO EM PERSPECTIVA ISOMÉTRICA

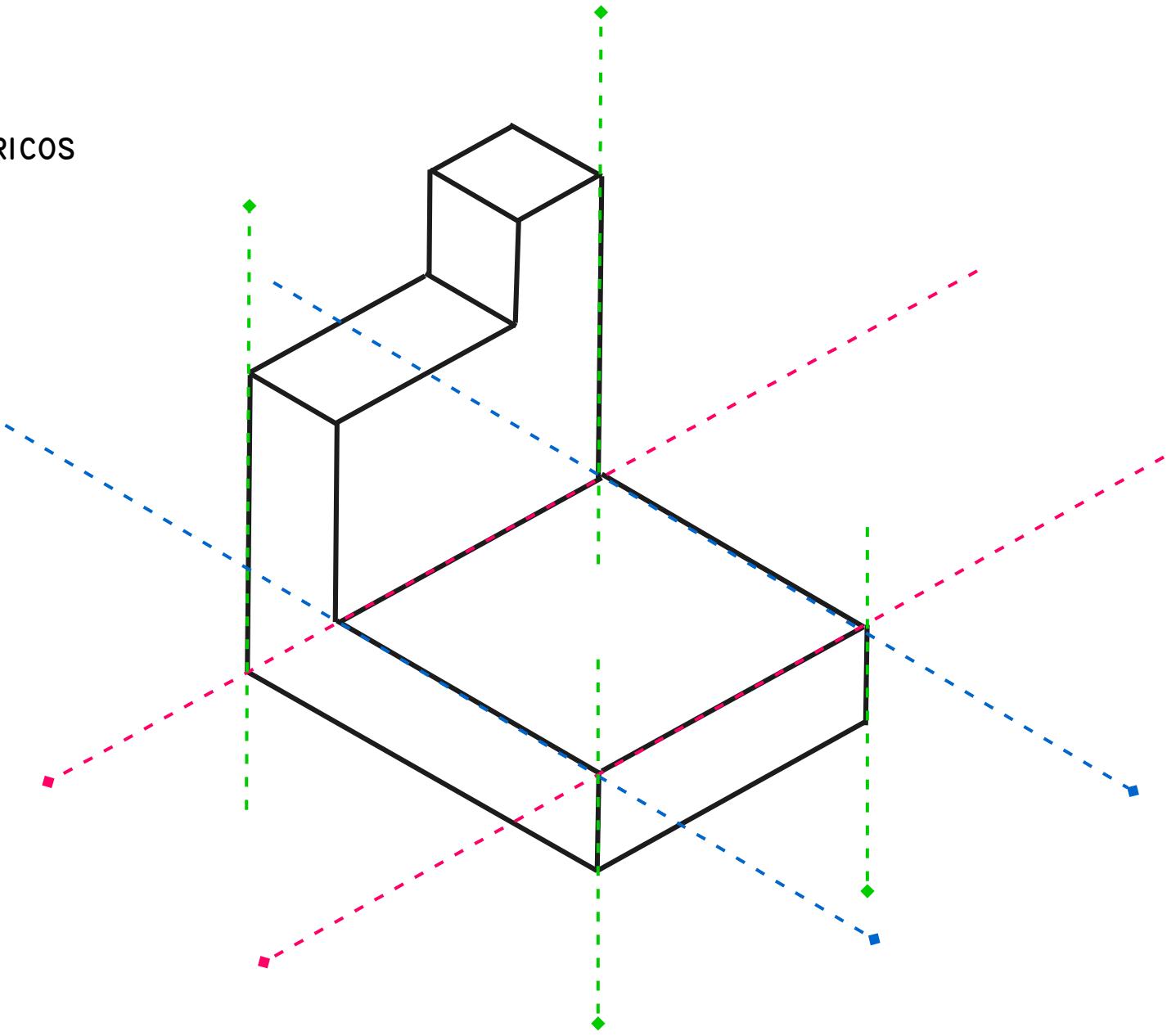


REPRESENTAÇÃO EM PERSPECTIVA ISOMÉTRICA



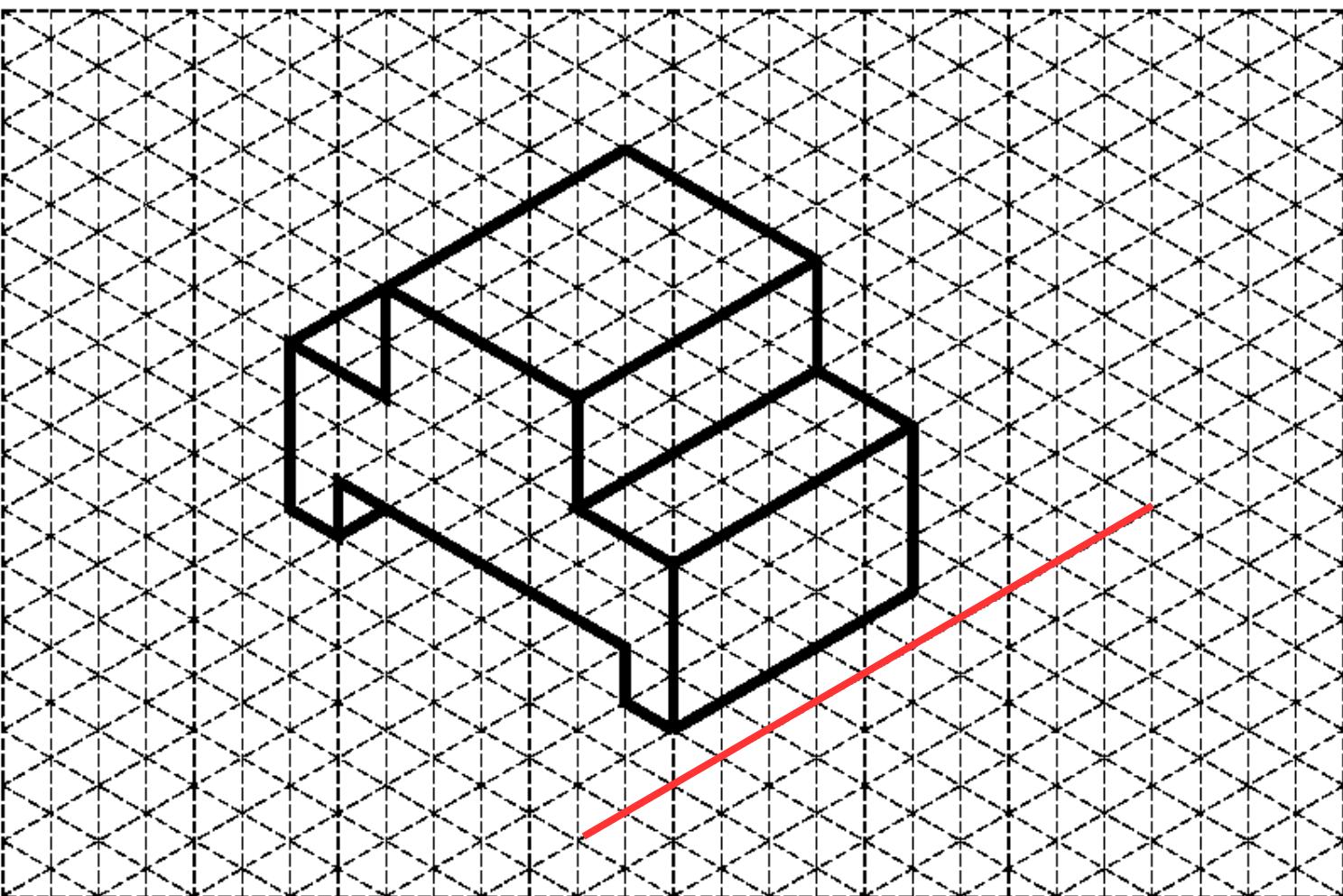


EIXOS ISOMÉTRICOS



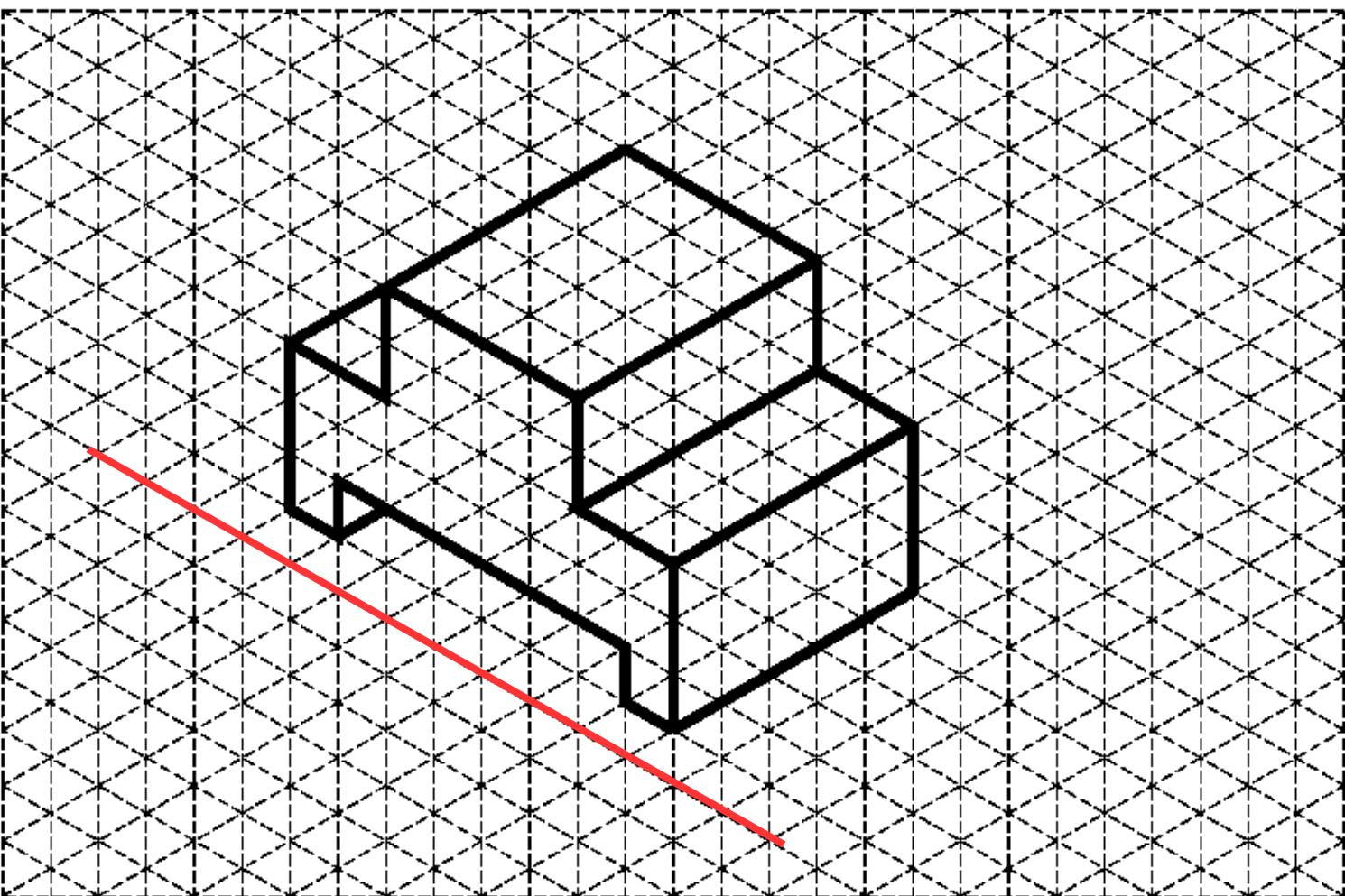


MALHA ISOMÉTRICA



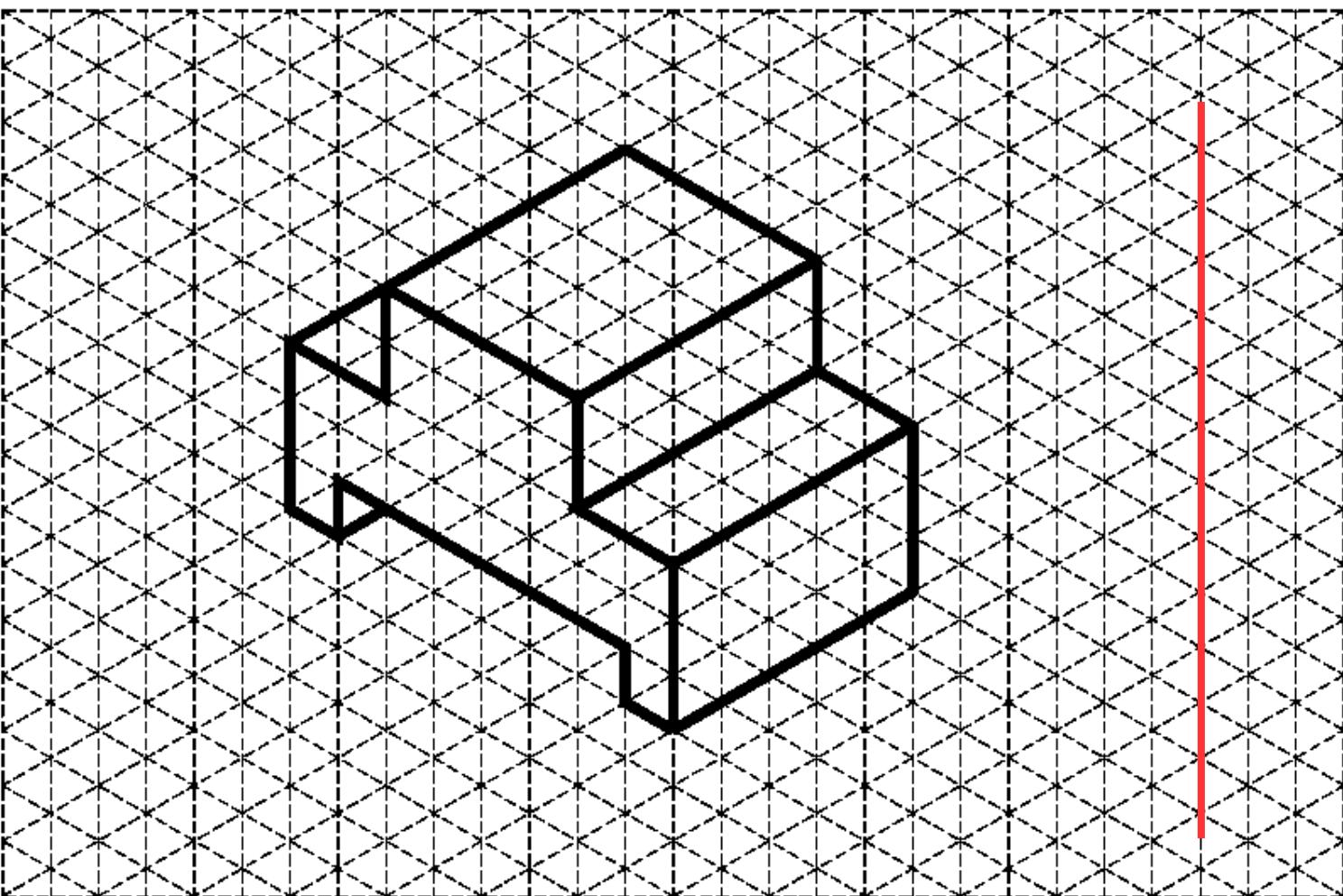


MALHA ISOMÉTRICA

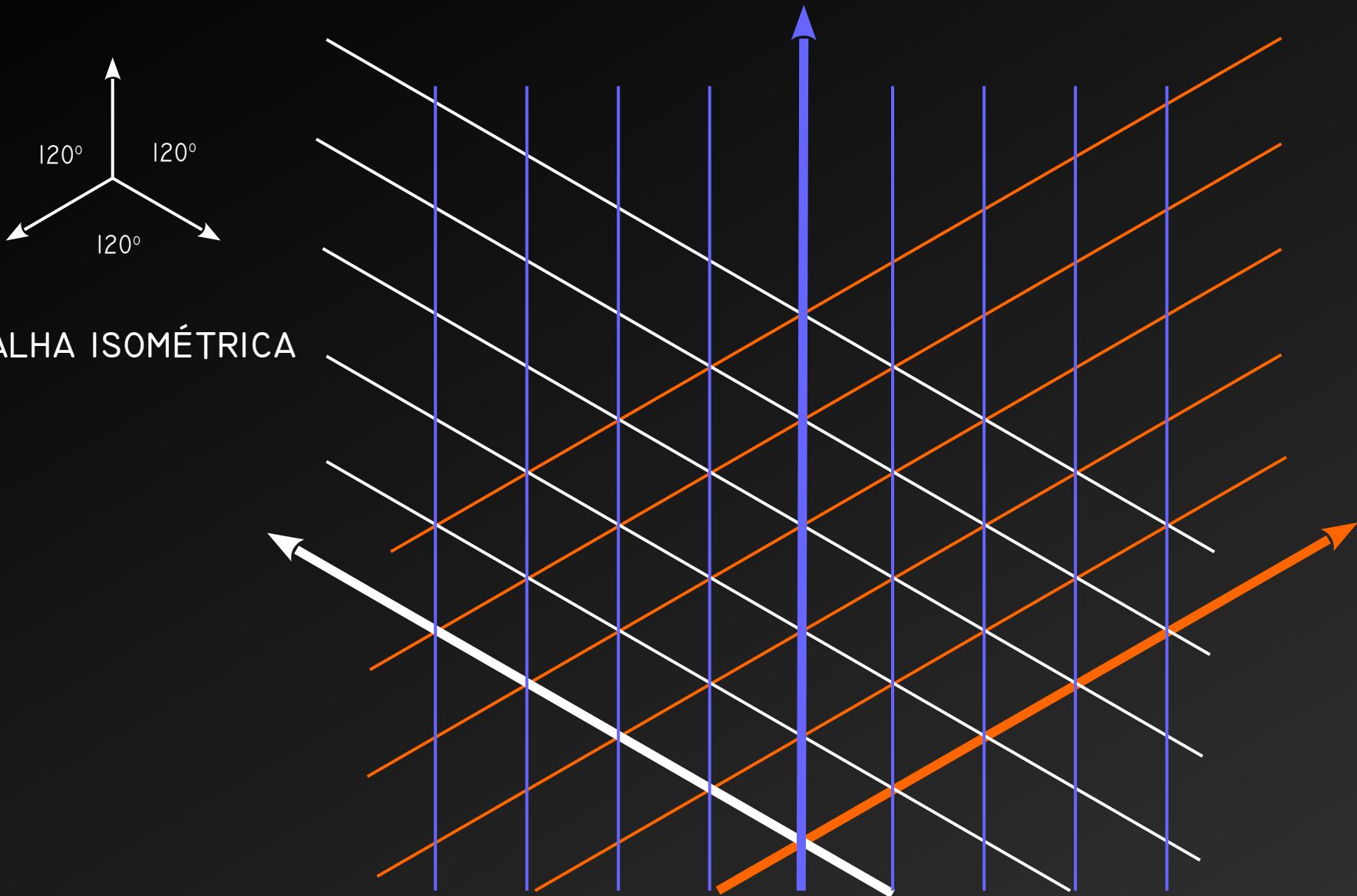


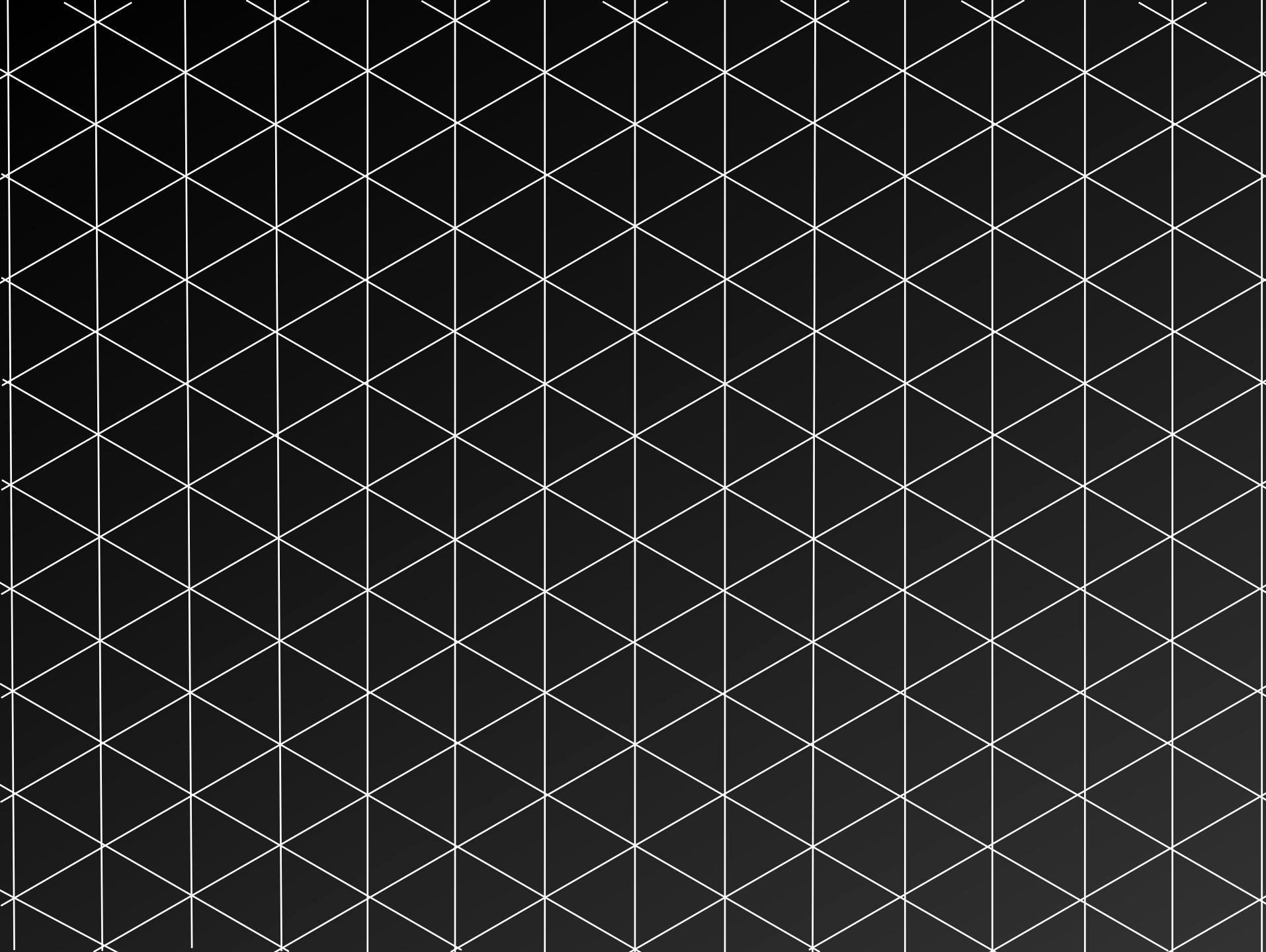


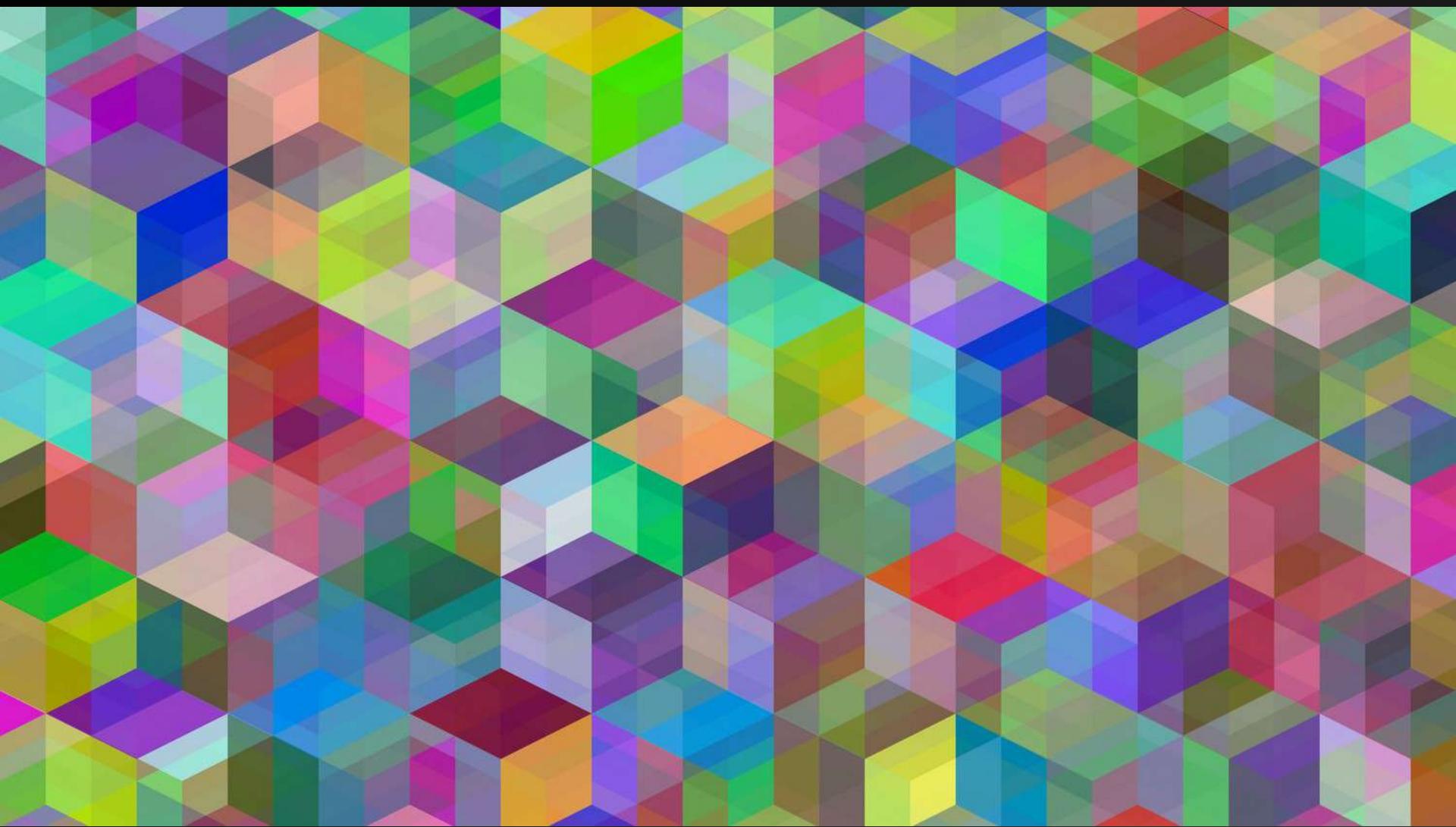
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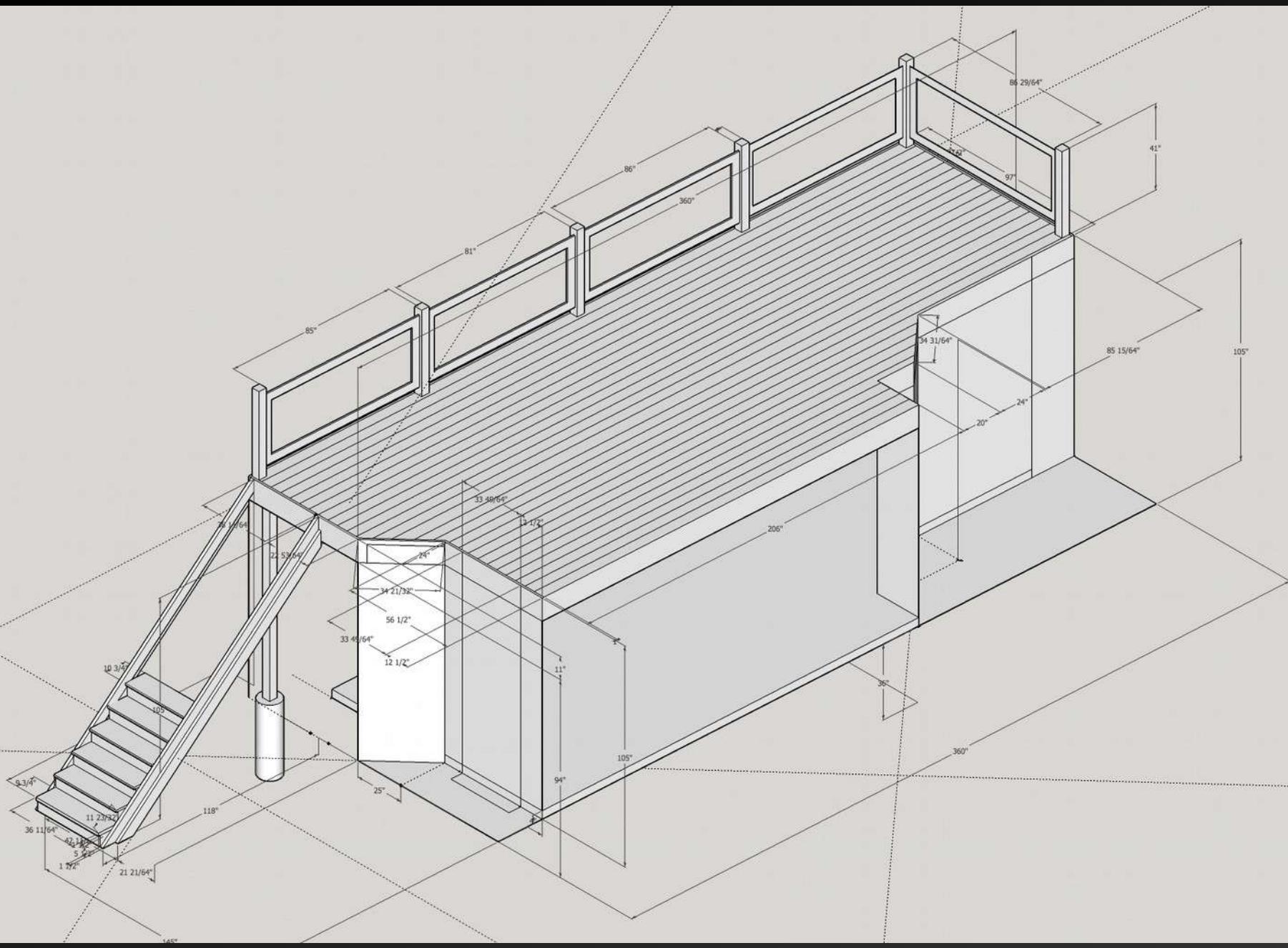


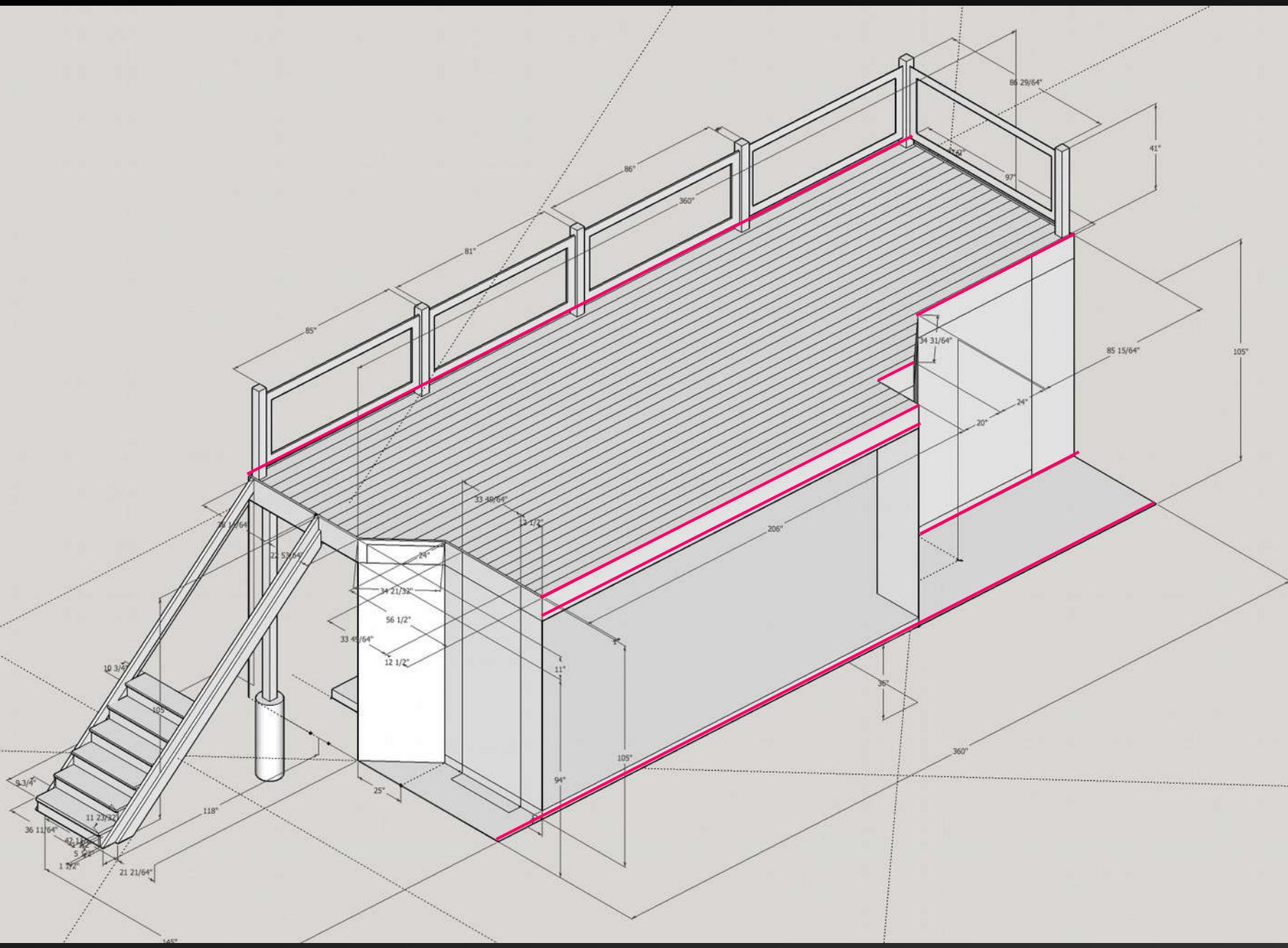
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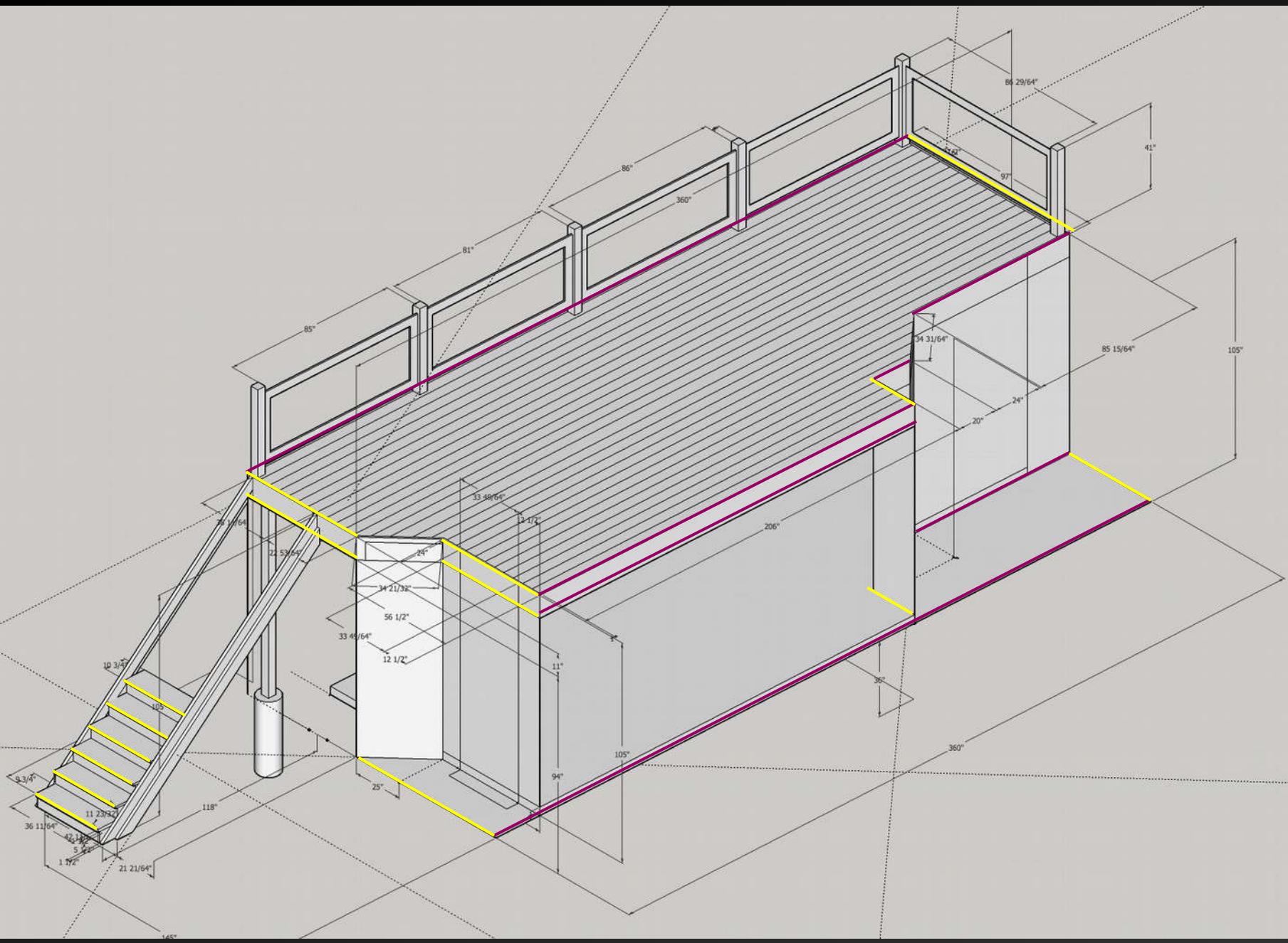


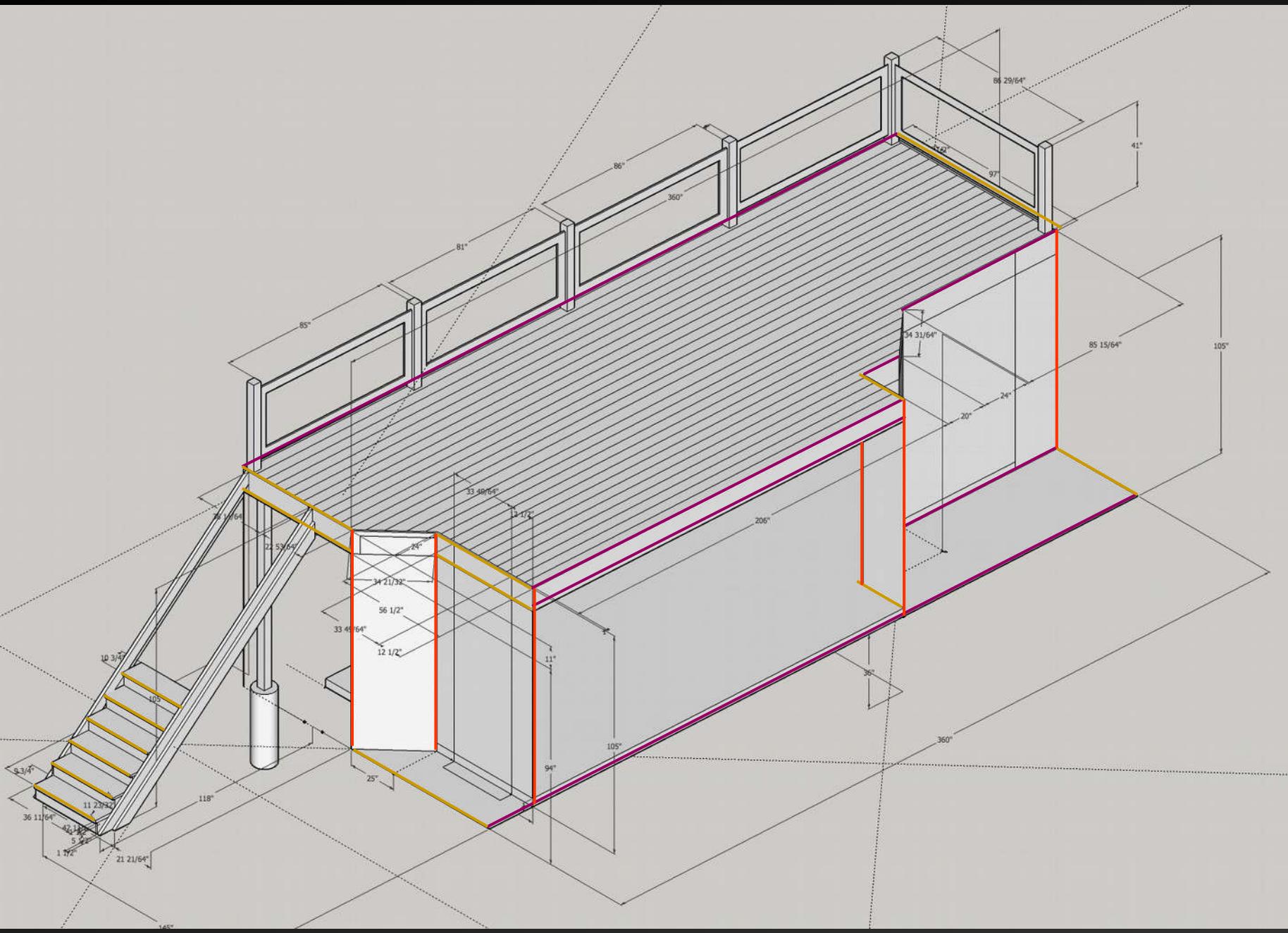


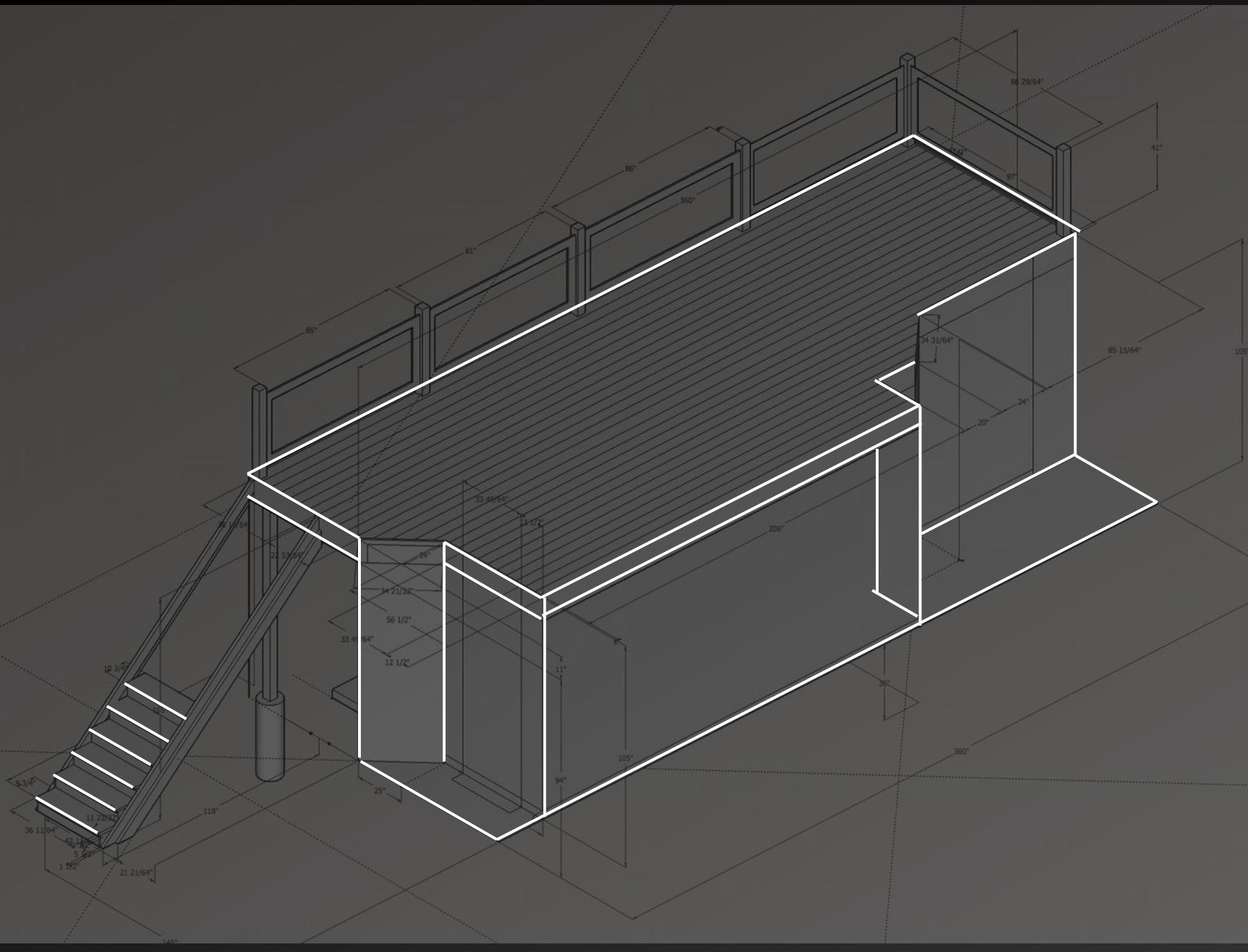


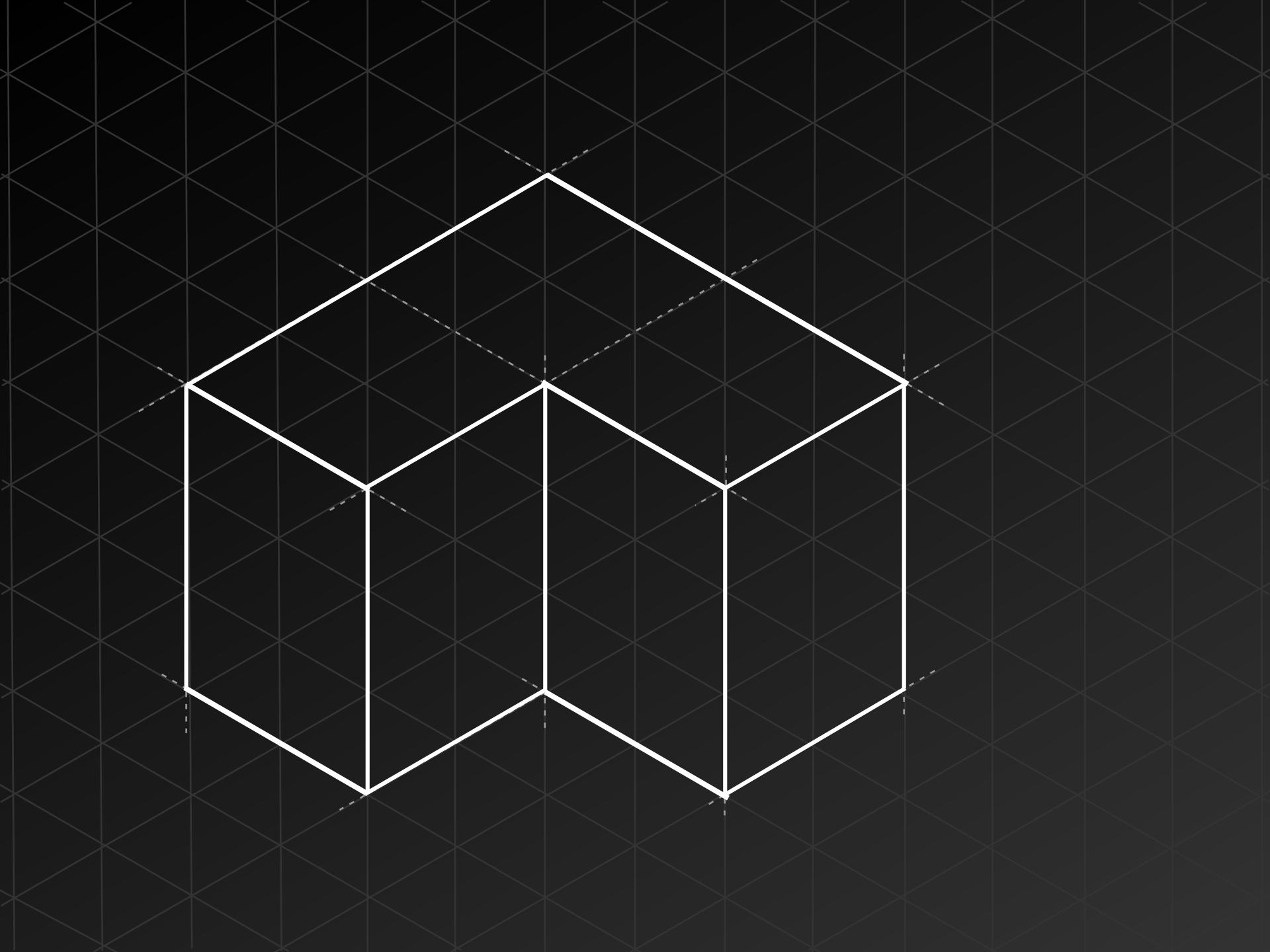




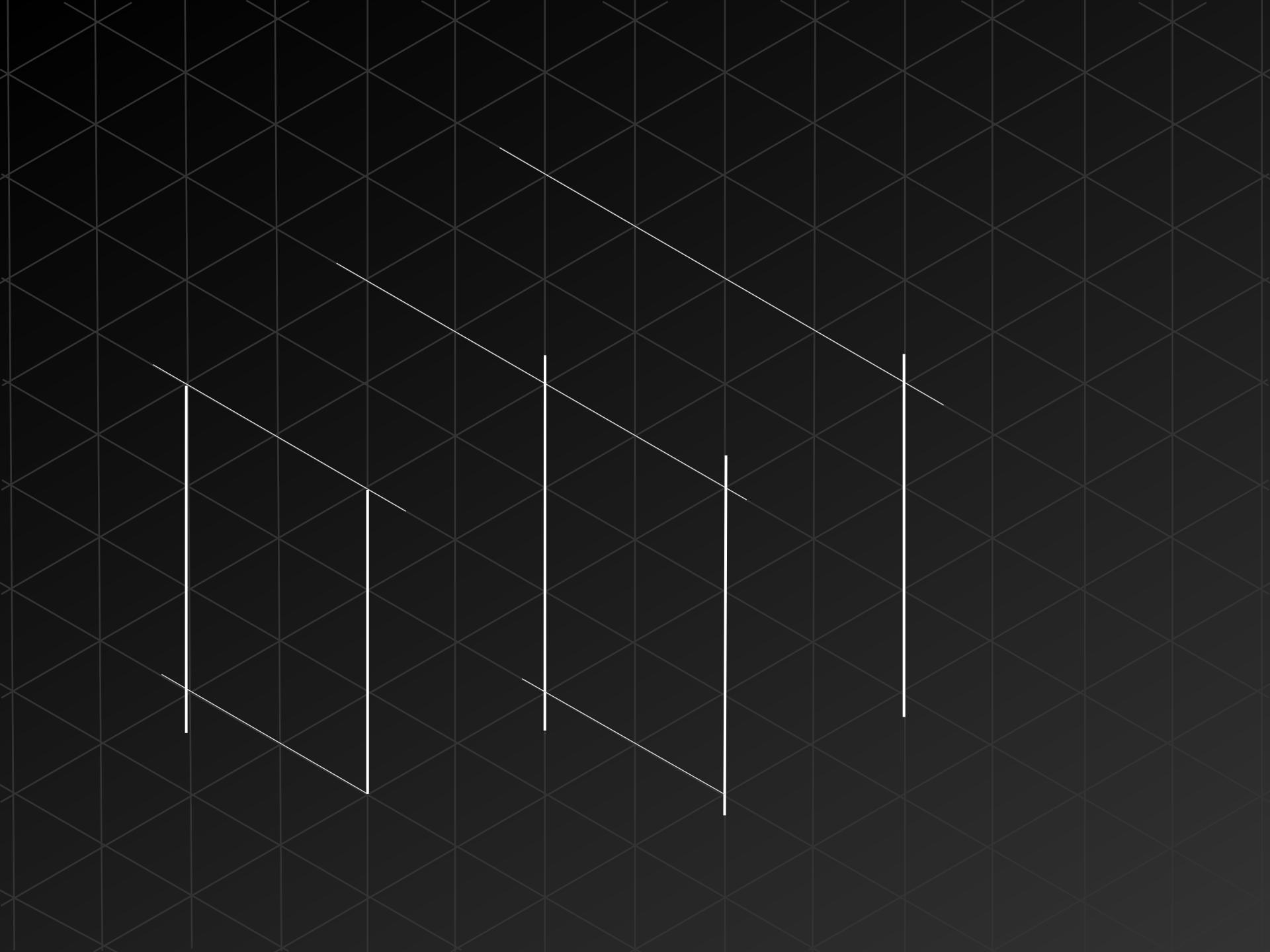




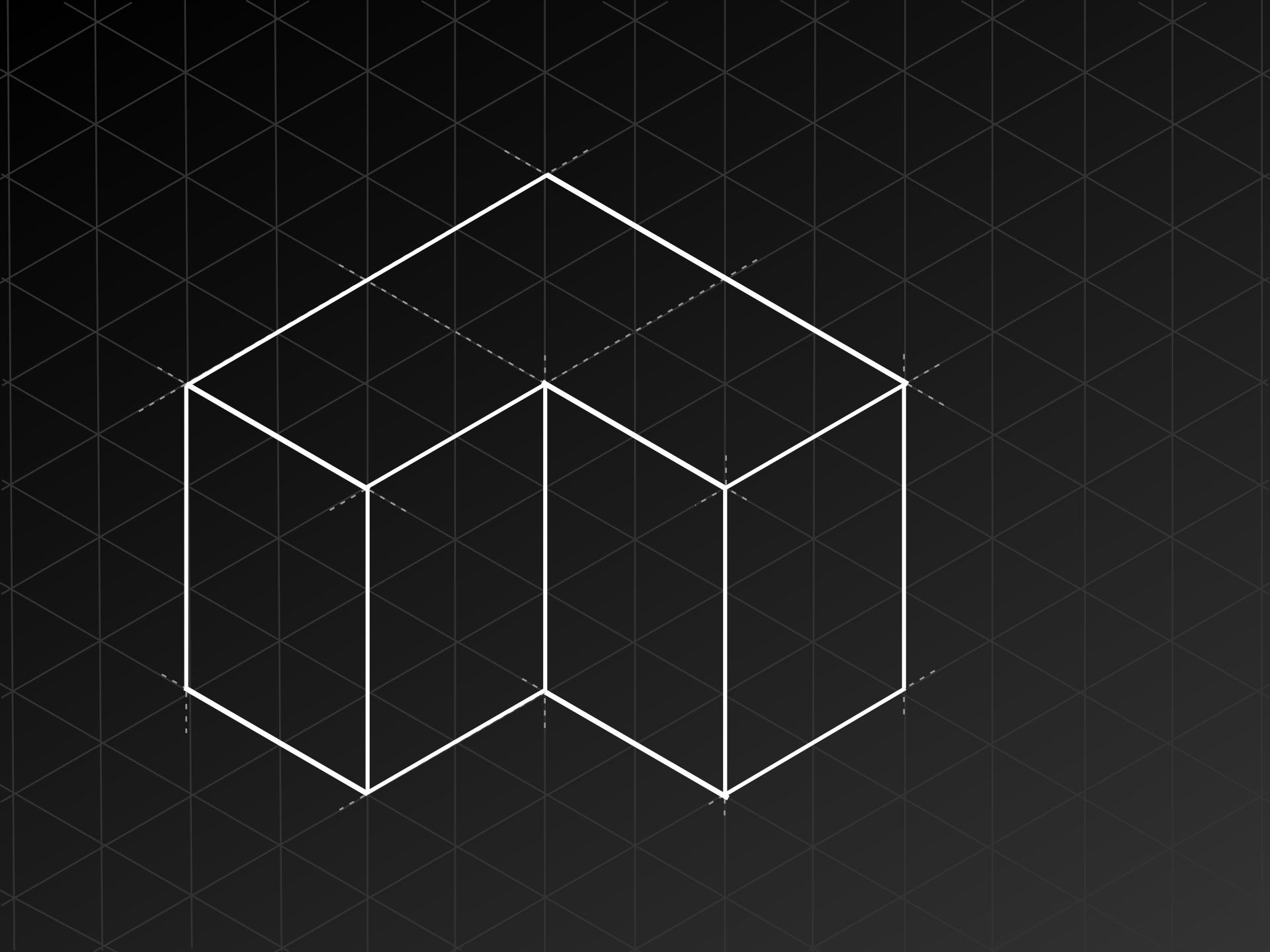


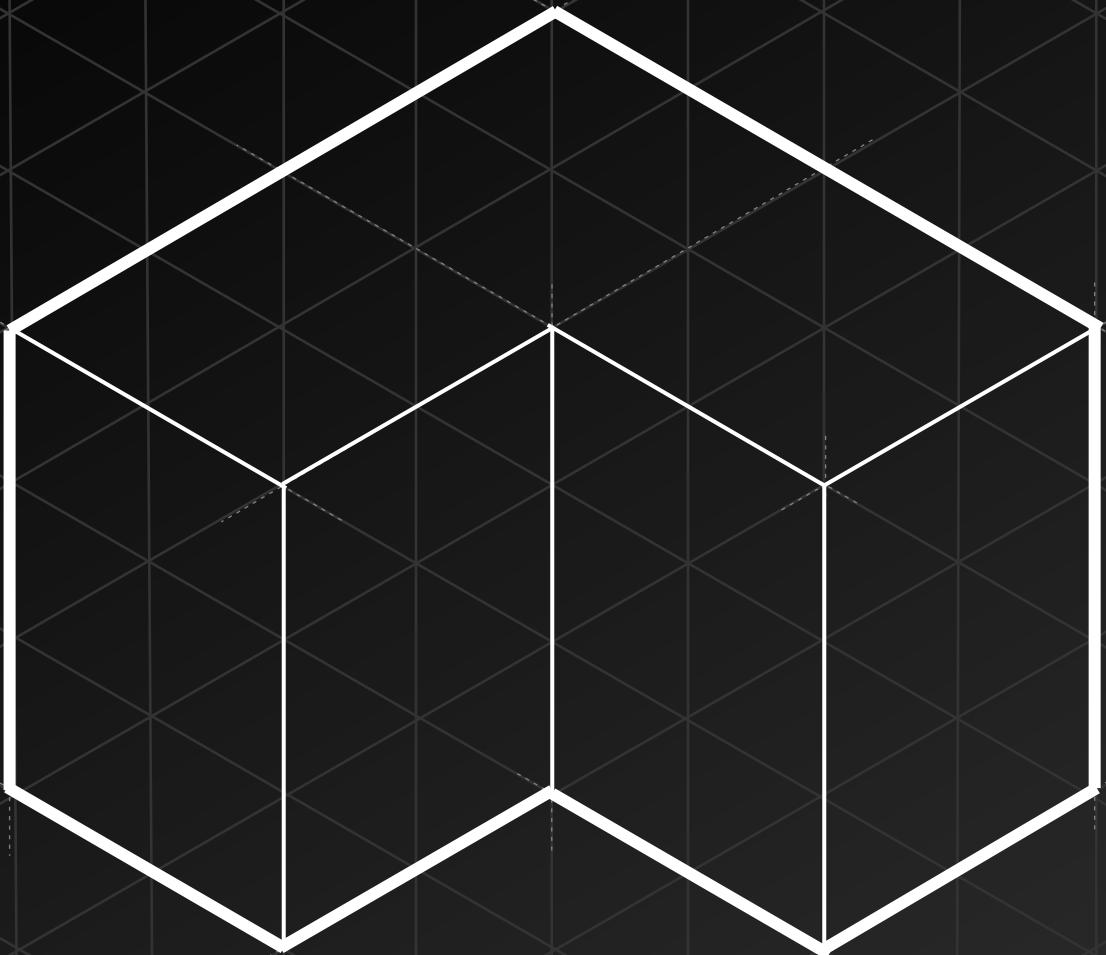


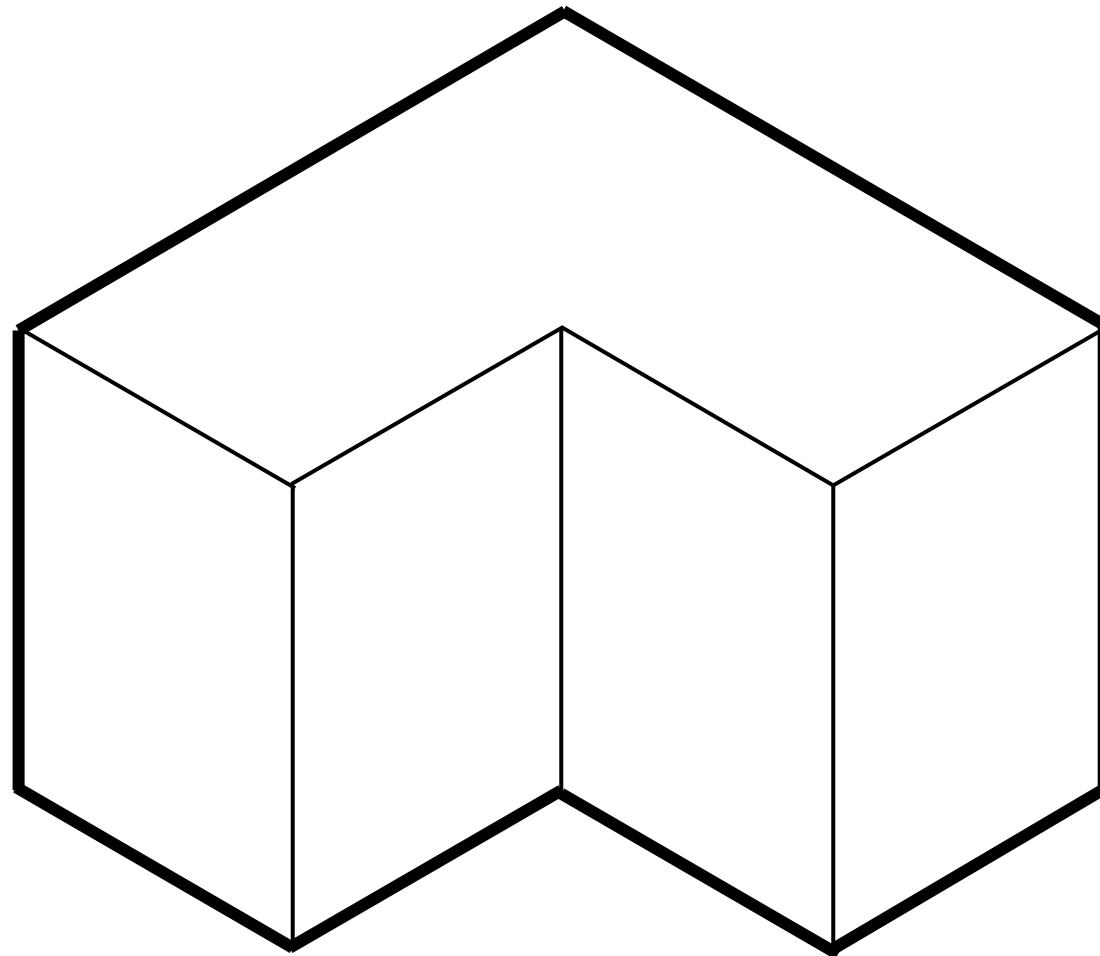






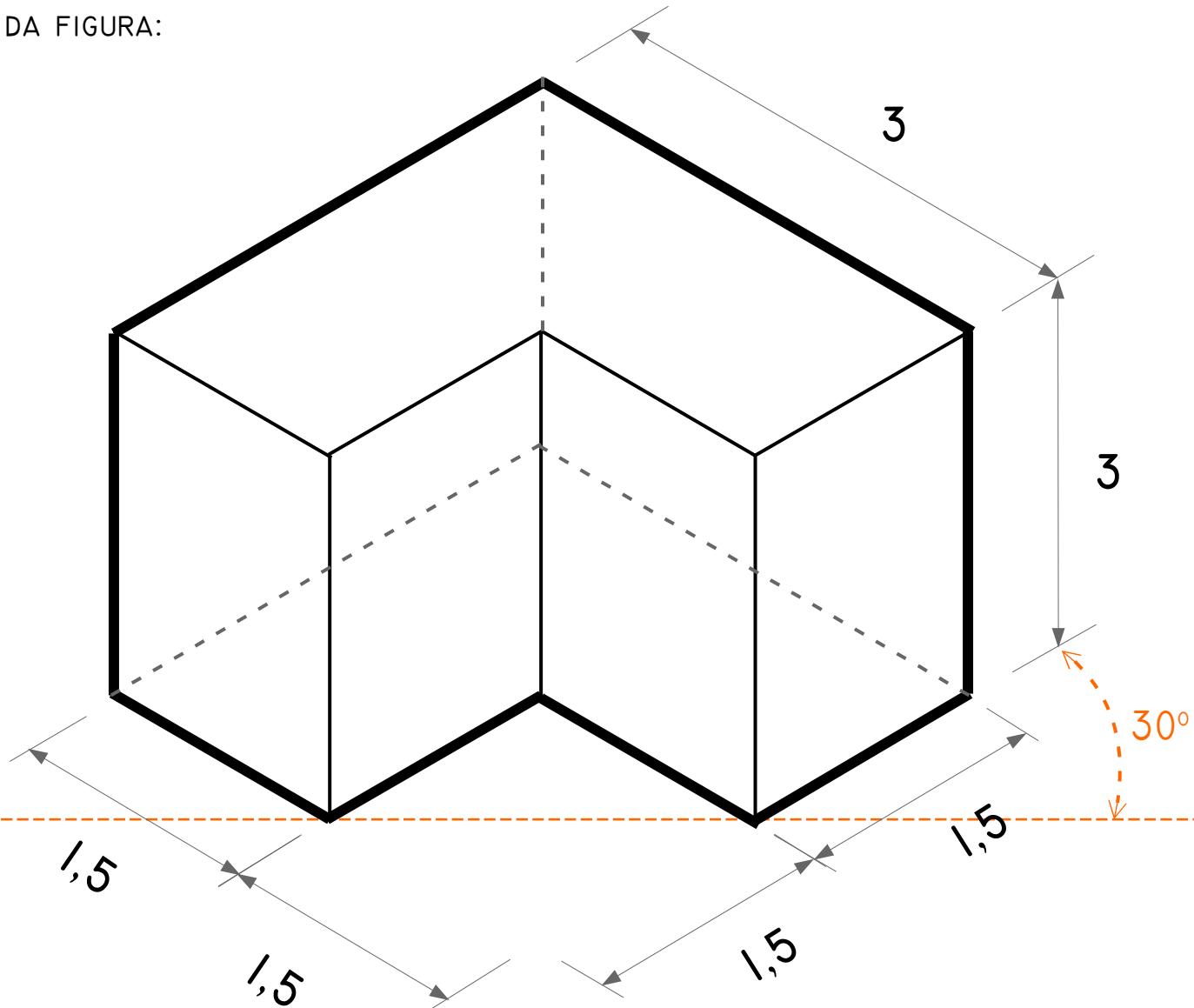






EXERCÍCIO

CRIE A PERSPECTIVA
ISOMÉTRICA DA FIGURA:



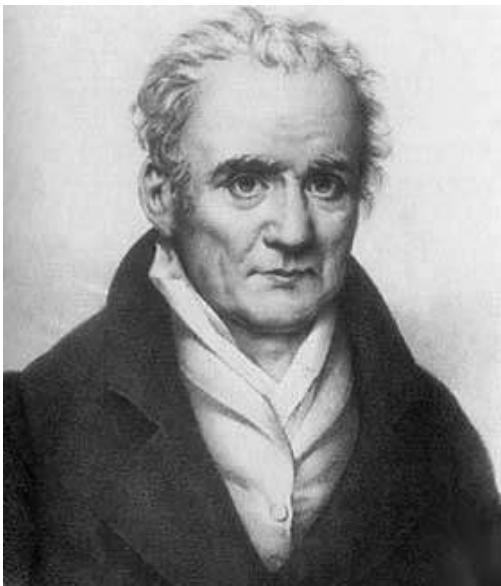
CONCEITOS INICIAIS

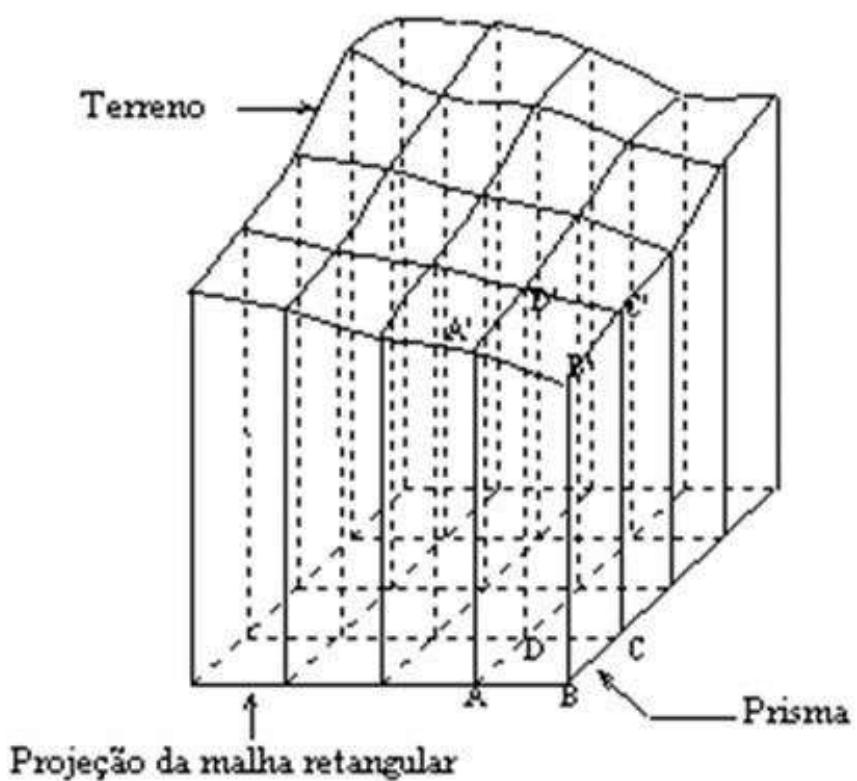
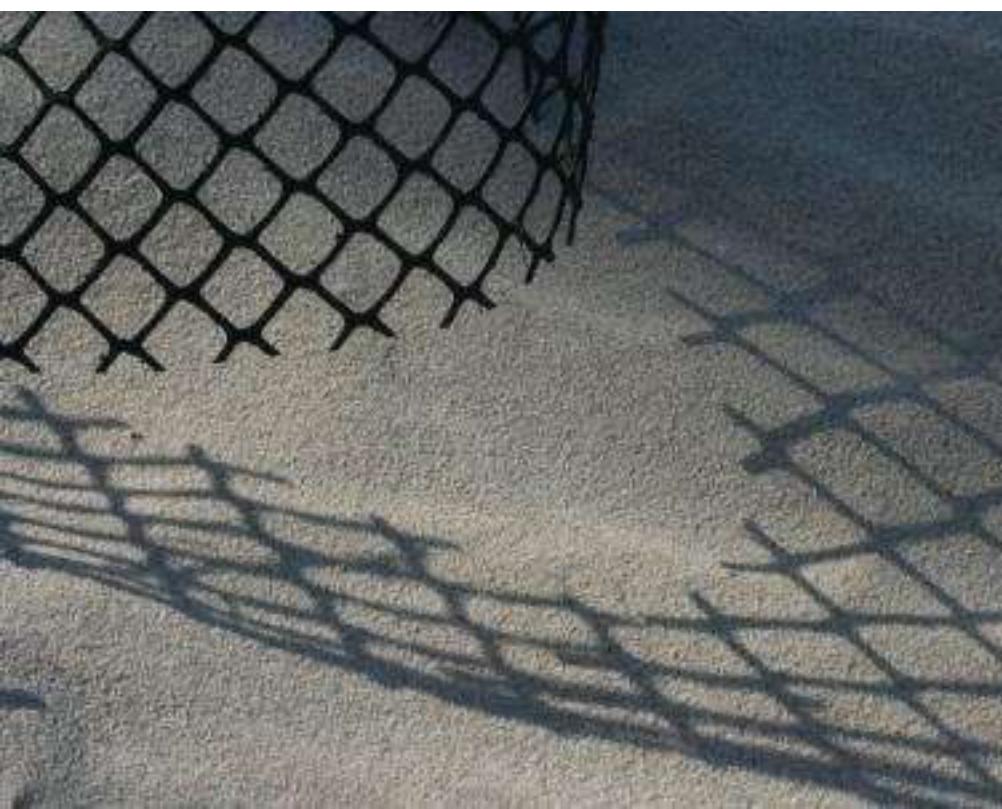
SISTEMAS DE PROJEÇÕES

SISTEMAS DE PROJEÇÃO - GEOMETRIA DESCRIPTIVA

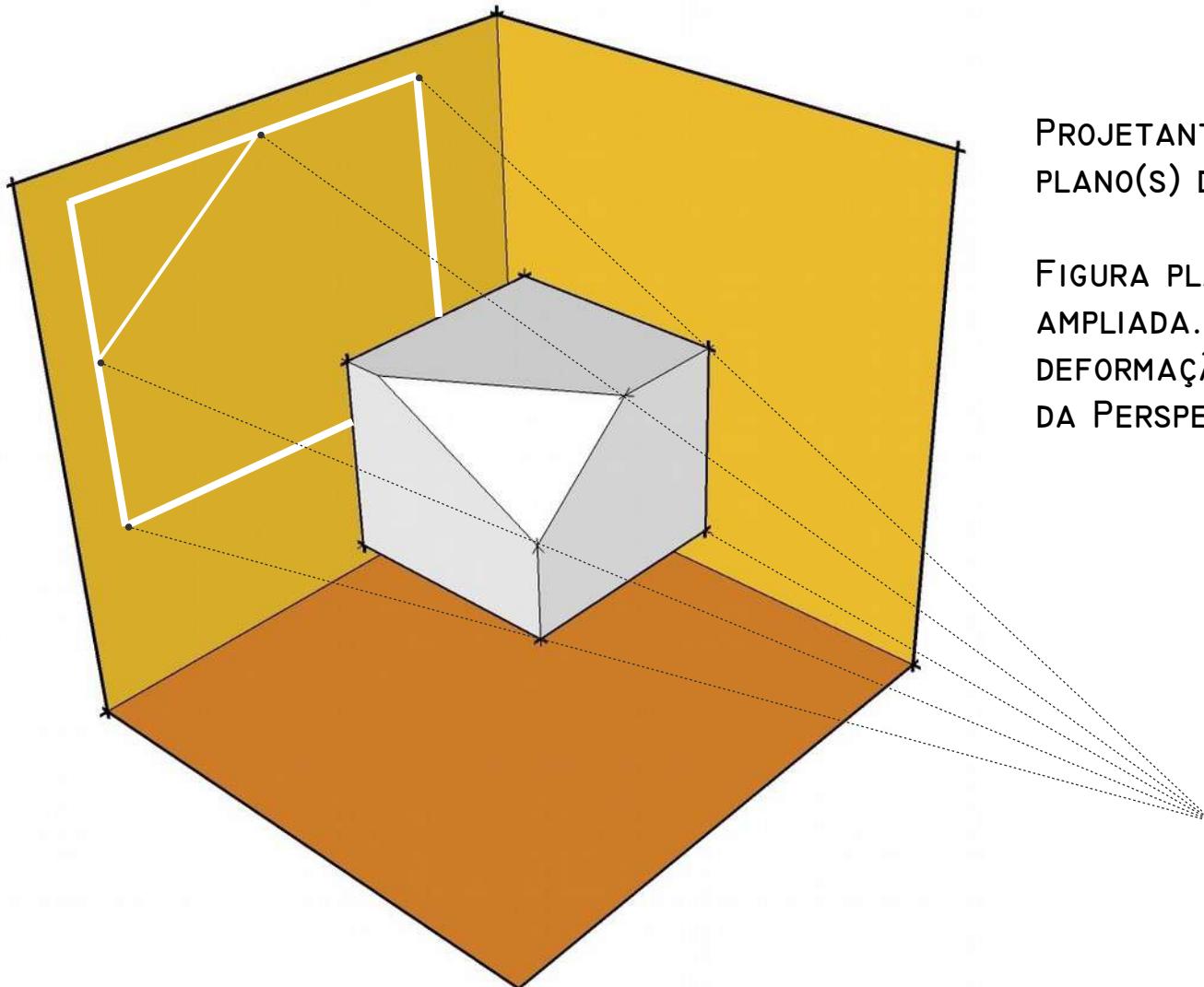
Gaspard Monge 1746 – 1818
Iluminismo, Revolução Francesa
(era das revoluções burguesas)

- Desenvolvimento do Capitalismo
- Desenvolvimento da Indústria
- Saída do artesanato
- Surgimento das máquinas





SISTEMA DE PROJEÇÃO CÔNICA

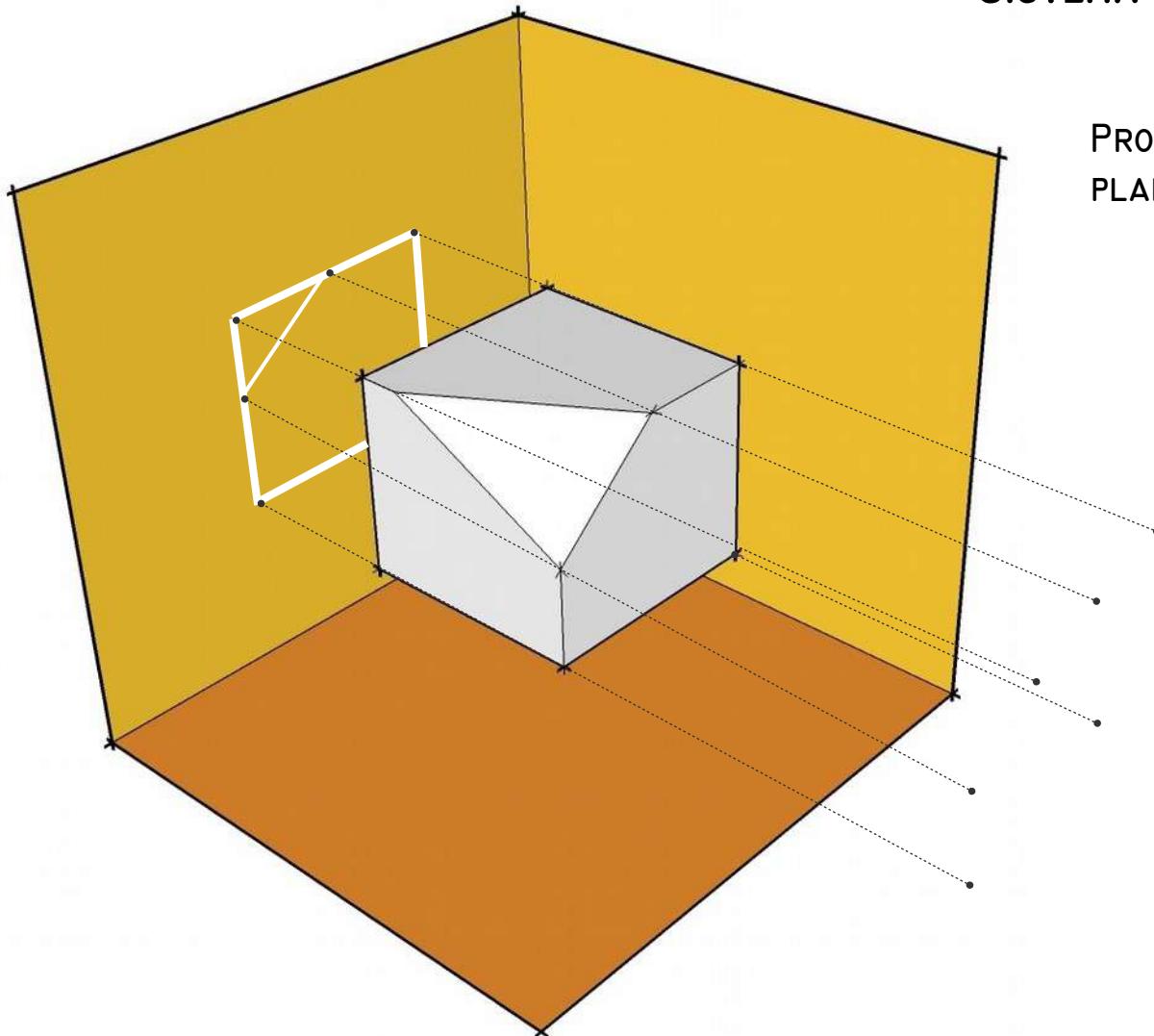


PROJETANTES OBLÍQUAS AO(S) PLANO(S) DE PROJEÇÕES.

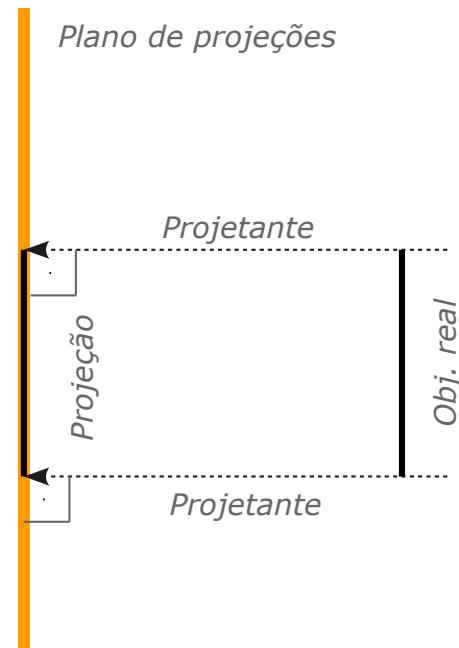
FIGURA PLANA PROJETADA É AMPLIADA. EXISTE UMA DEFORMAÇÃO DA IMAGEM (CASO DA PERSPECTIVA).

Centro de Projeções

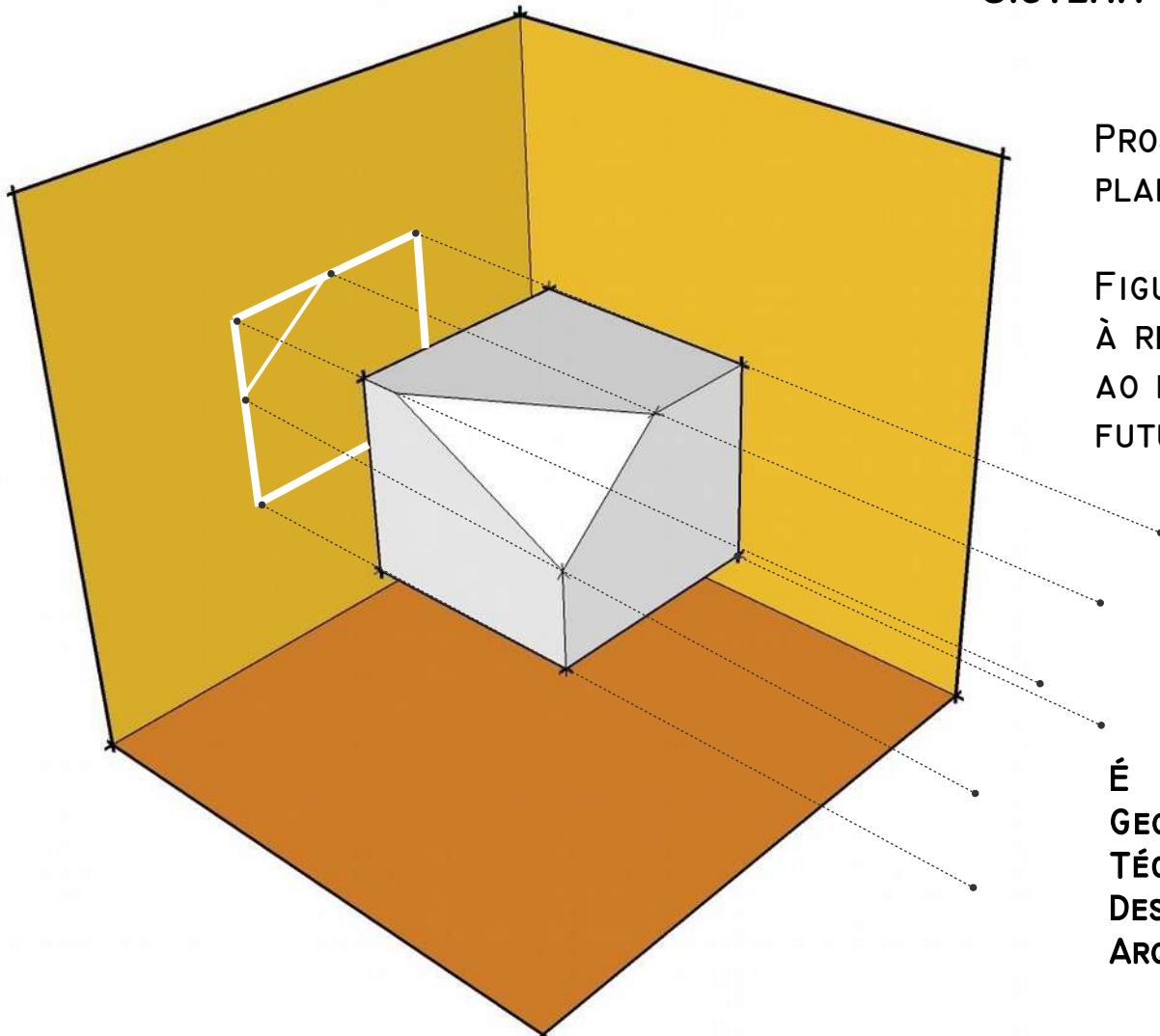
SISTEMA DE PROJEÇÃO CILÍNDRICA



PROJETANTES ORTOGONAL(S)
AO(S) PLANO(S) DE PROJEÇÕES.



SISTEMA DE PROJEÇÃO CILÍNDRICA

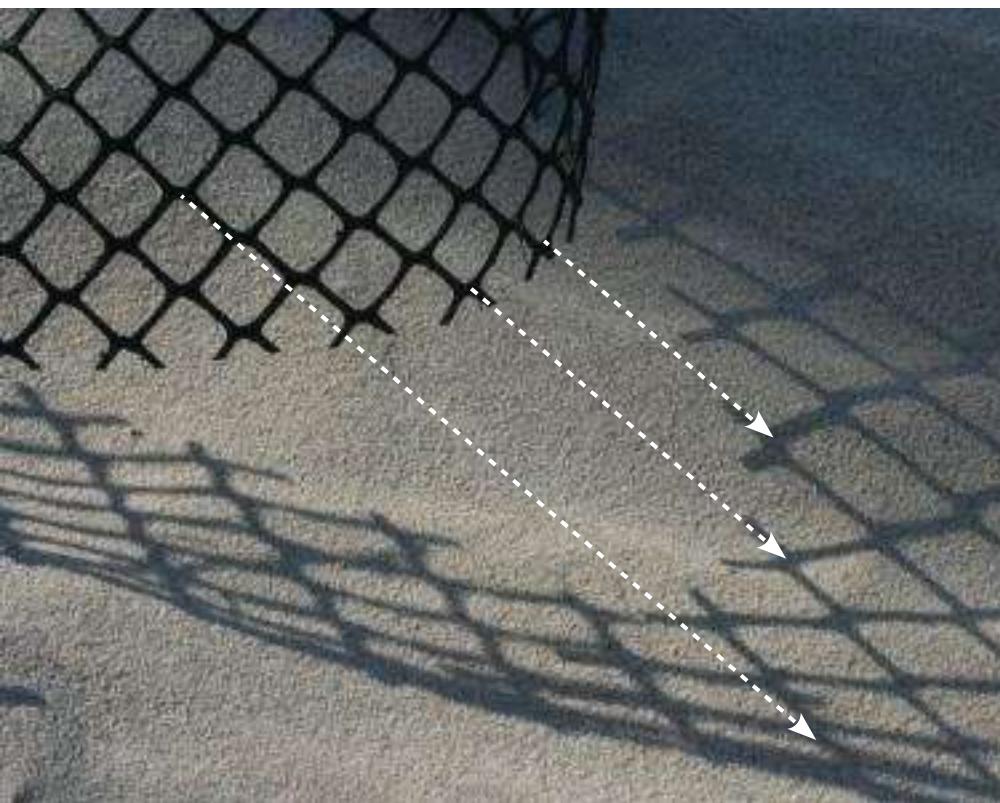


PROJETANTES ORTOGONAL(S) AO(S) PLANO(S) DE PROJEÇÕES.

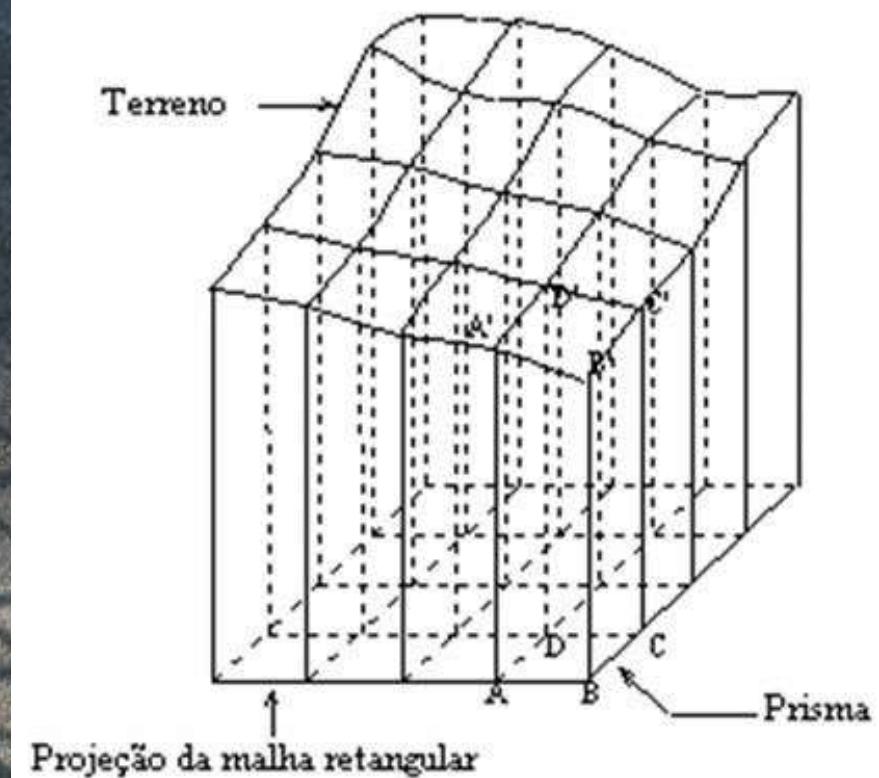
FIGURA PLANA PROJETADA É FIEL À REAL, SE ESTIVER PARALELA AO PLANO DE PROJEÇÕES (AULA FUTURA).

É O SISTEMA UTILIZADO PELA GEOMETRIA DESCRIPTIVA, DESENHO TÉCNICO, DESENHO MECÂNICO, DESENHO TOPOGRÁFICO E DESENHO ARQUITETÔNICO.

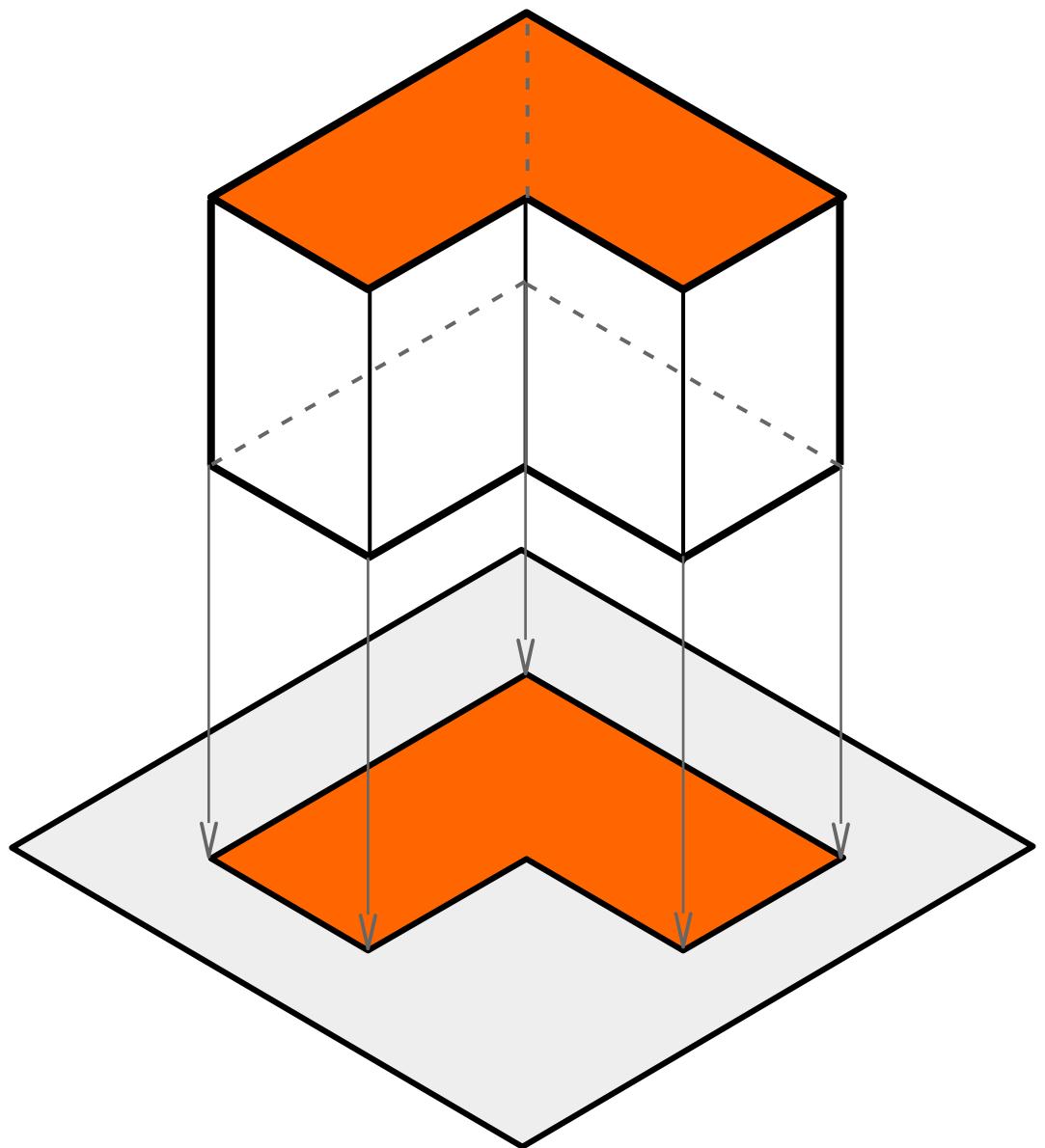
PROJEÇÃO CILÍNDRICA OBLÍQUA



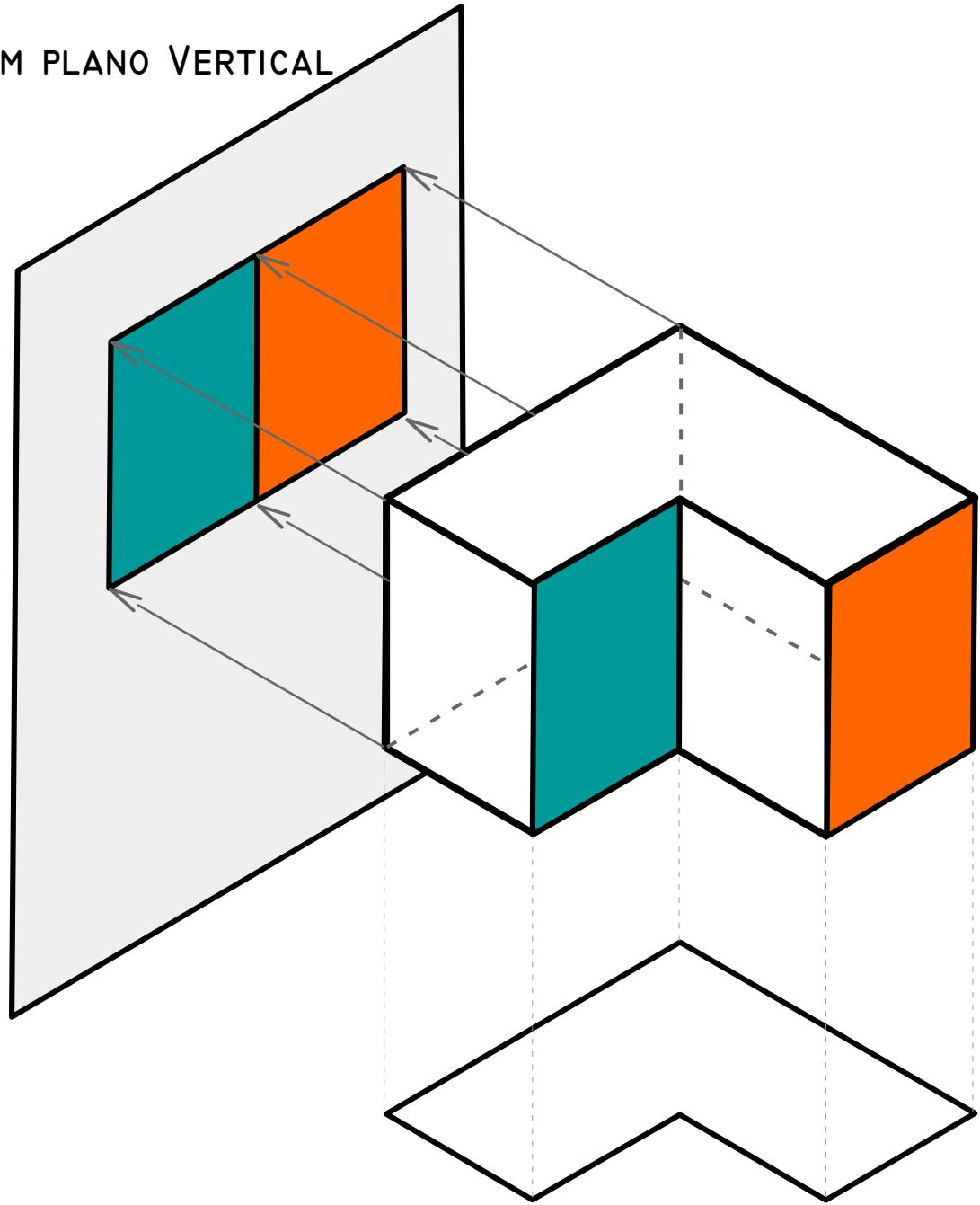
PROJEÇÃO CILÍNDRICA ORTOGONAL



PROJEÇÃO DA FIGURA SOBRE UM PLANO HORIZONTAL



PROJEÇÃO DA FIGURA SOBRE UM PLANO VERTICAL



SISTEMAS DE PROJEÇÃO

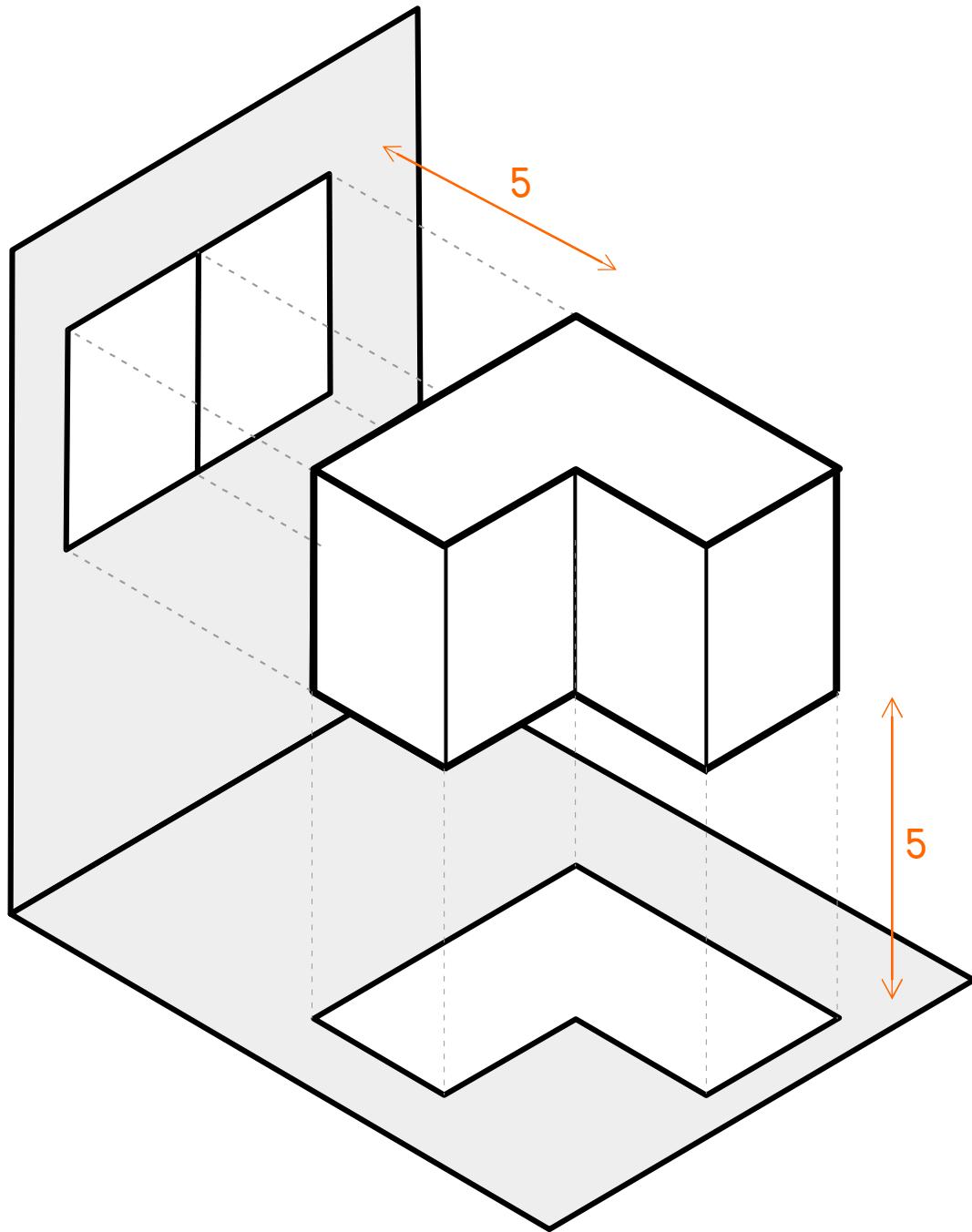
SISTEMA DE PROJEÇÃO ORTOGONAL:

OBJETO É PROJETADO
ORTOGONALMENTE SOBRE PLANOS.

*PLANO VERTICAL
PLANO HORIZONTAL*

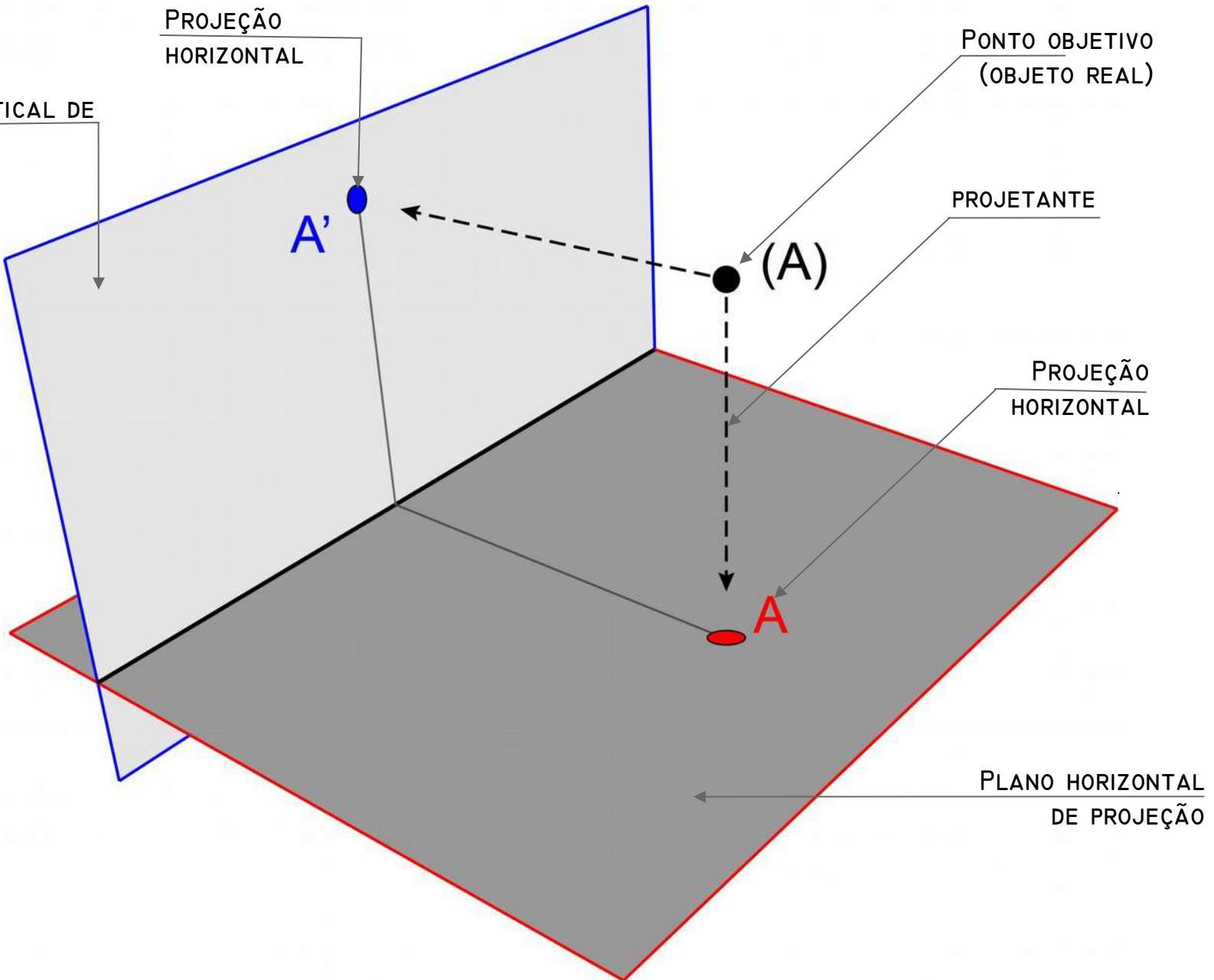
NESTE CASO OS DOIS PLANOS SÃO
PERPENDICULARES ENTRE SI.

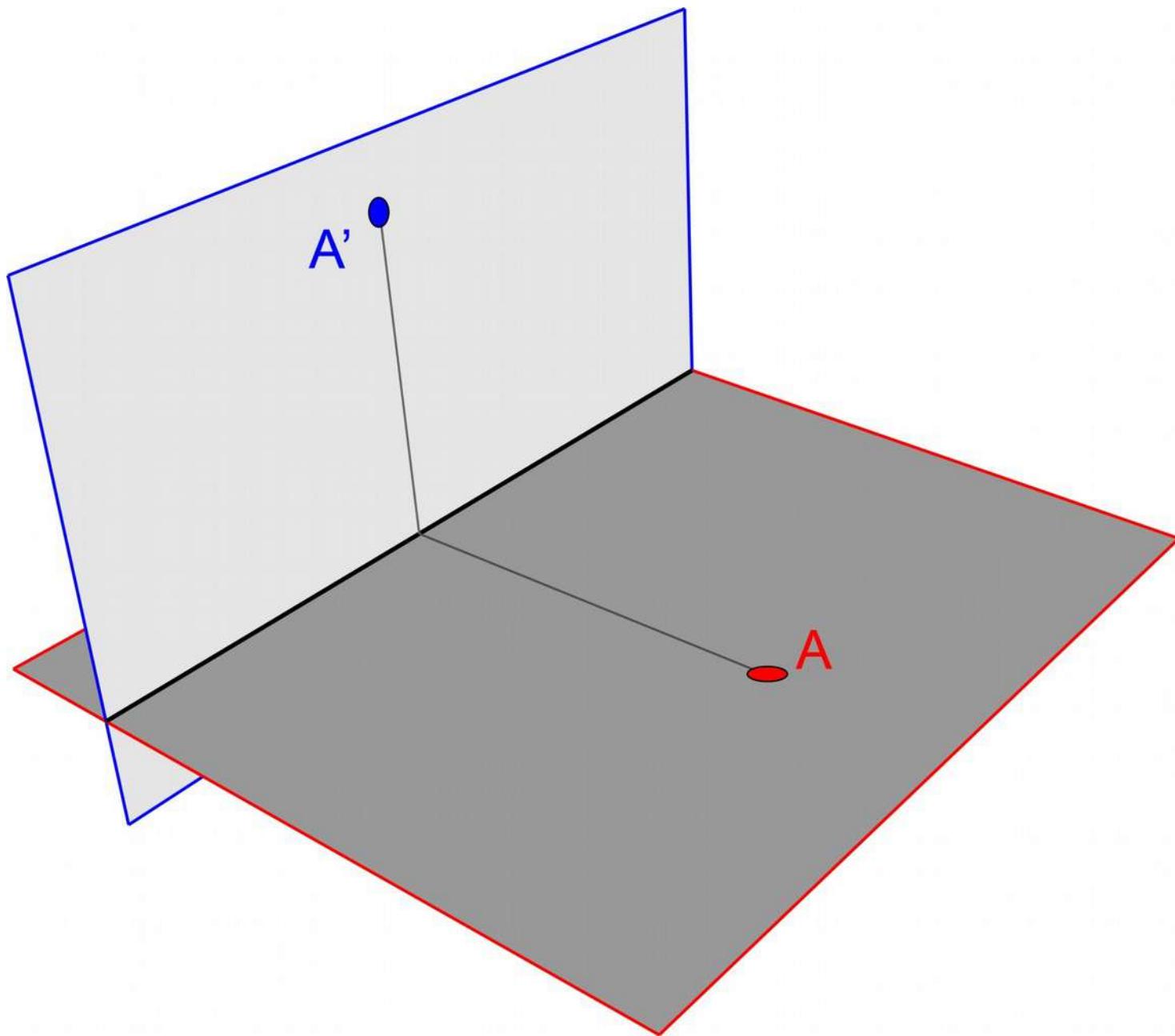
DIFERENTE DA PROJEÇÃO OBLÍQUA,
NÃO ACONTECE DEFORMAÇÃO DA
IMAGEM PROJETADA (PROJEÇÃO).
ELA TEM AS MESMAS MEDIDAS DO
ELEMENTO REAL

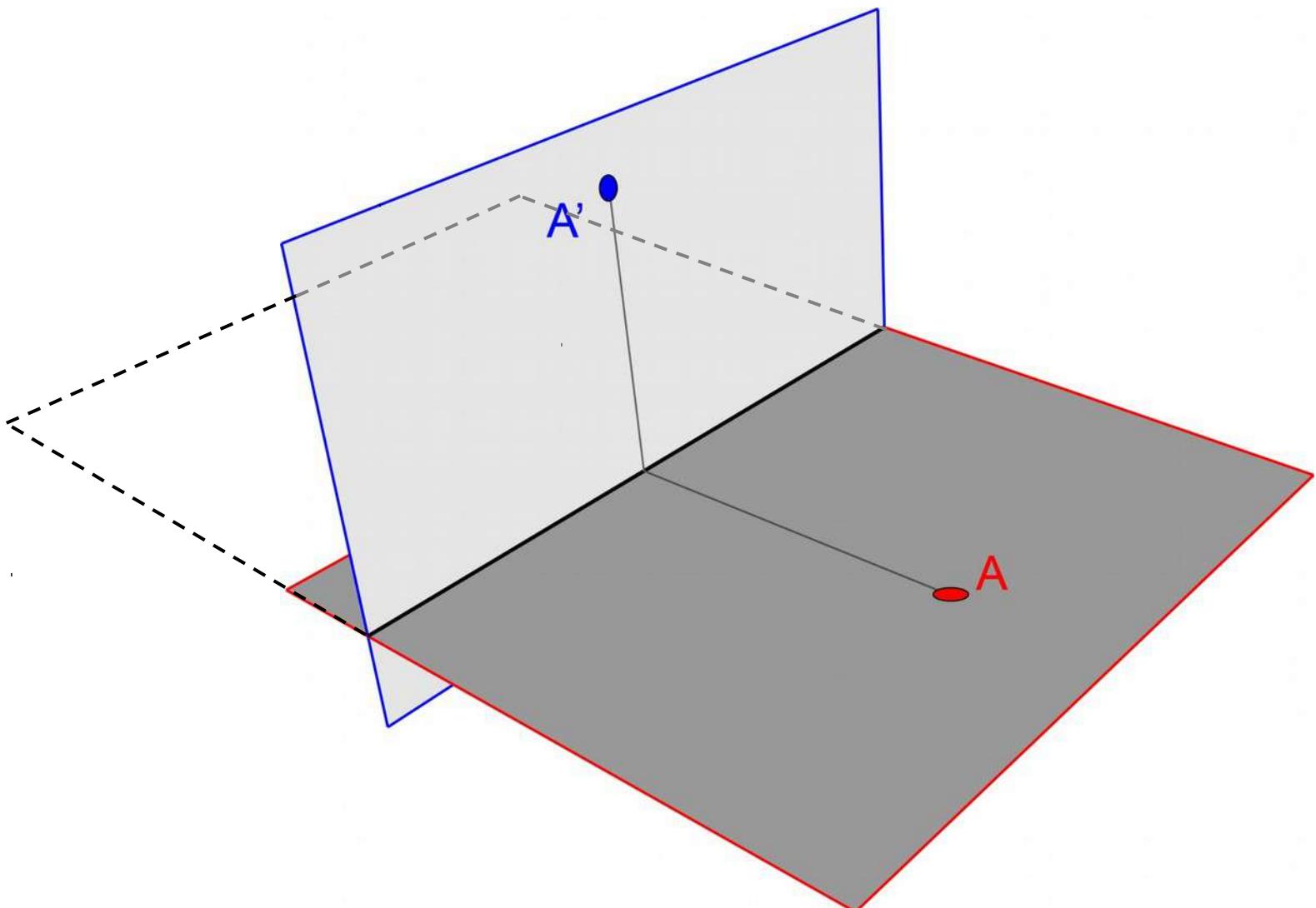


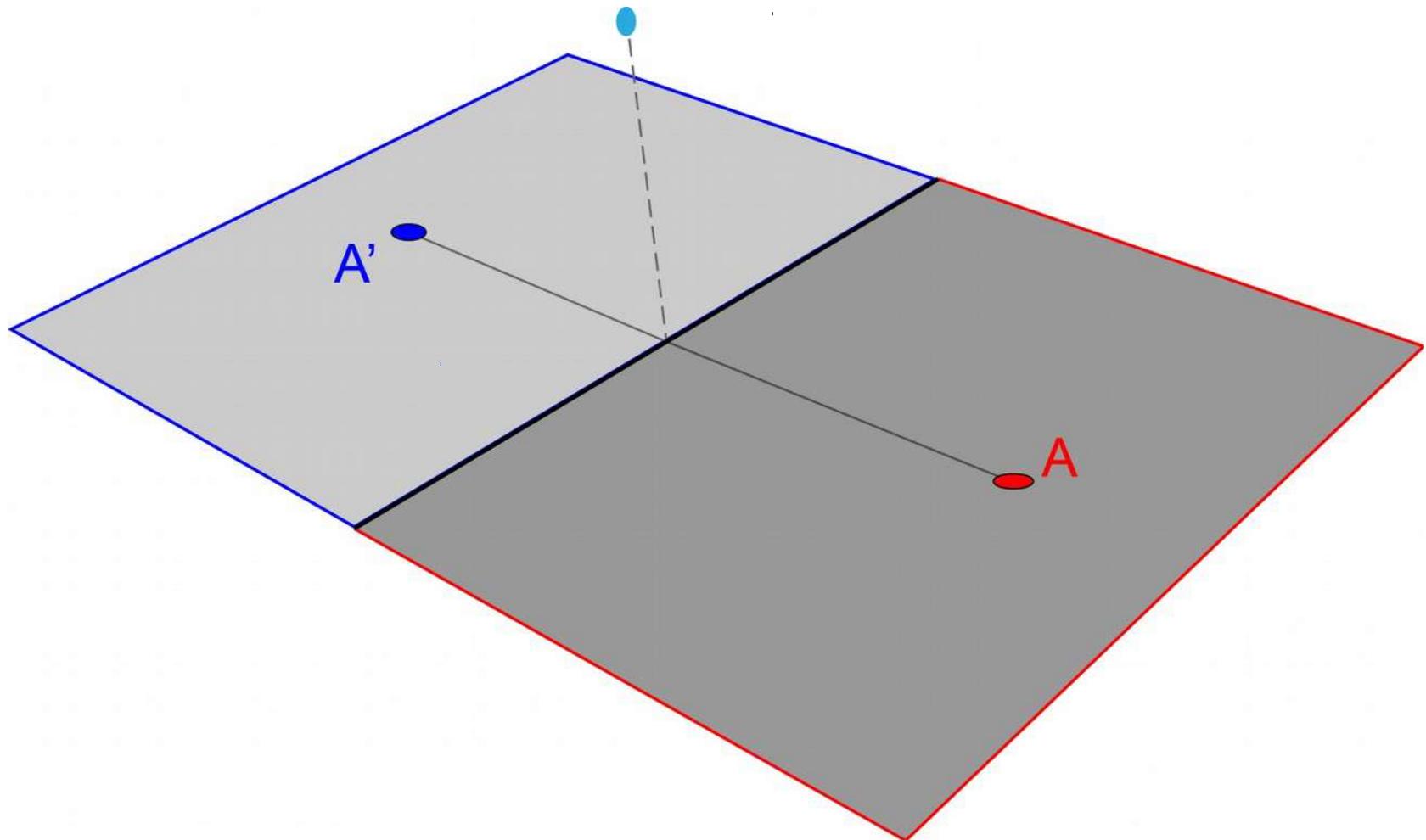
CONCEITOS INICIAIS

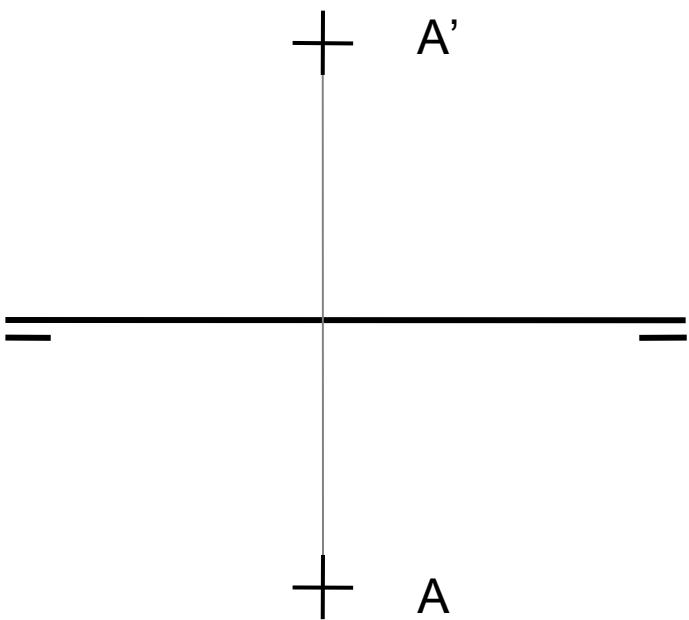
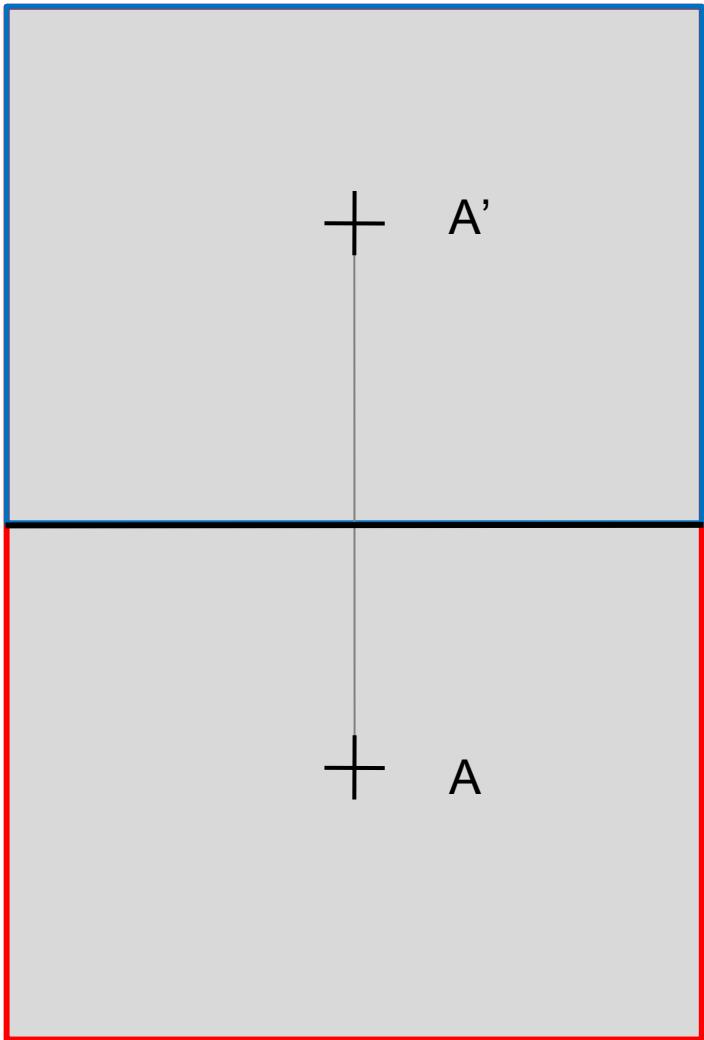
SISTEMA DE PROJEÇÕES MONGEANO

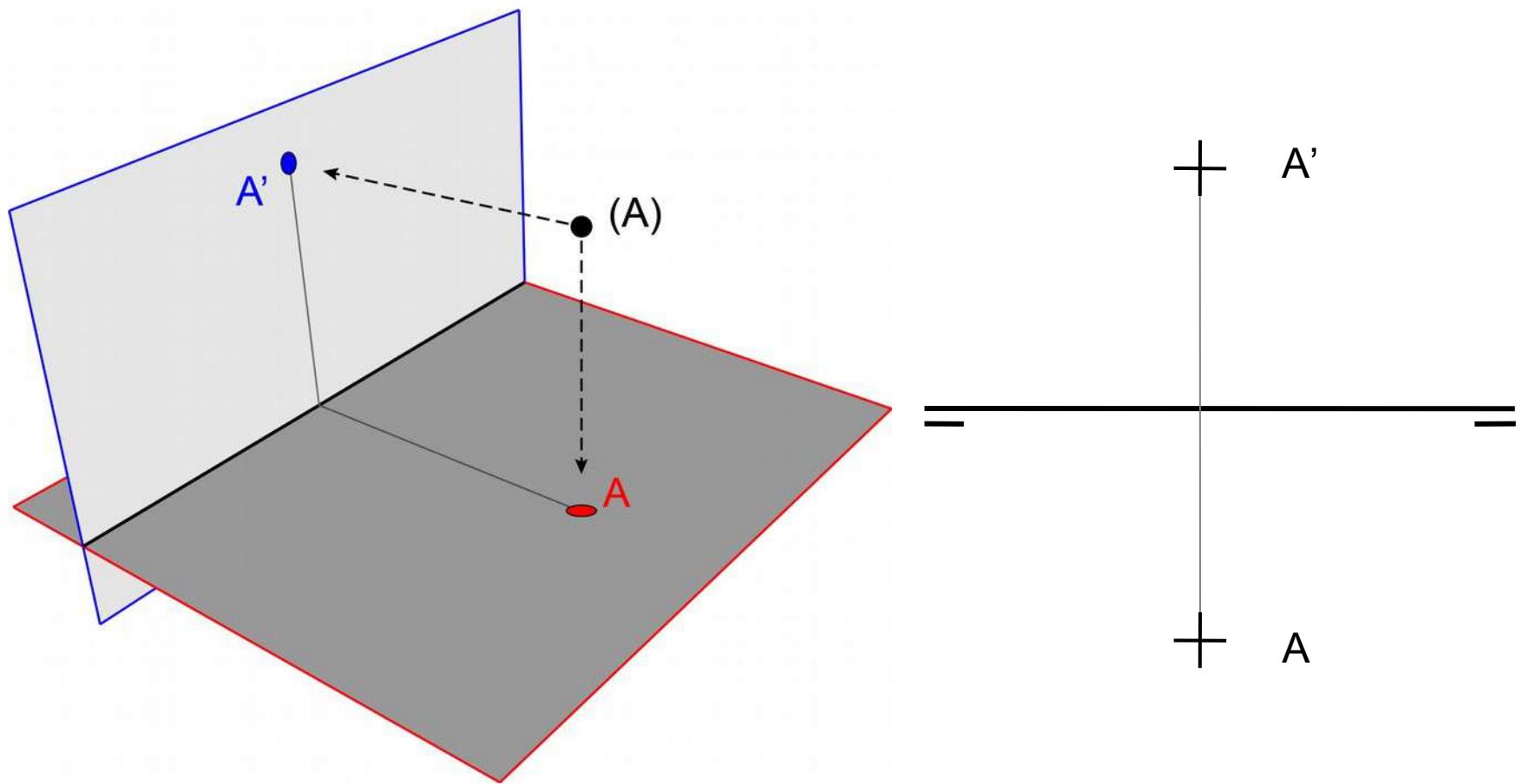






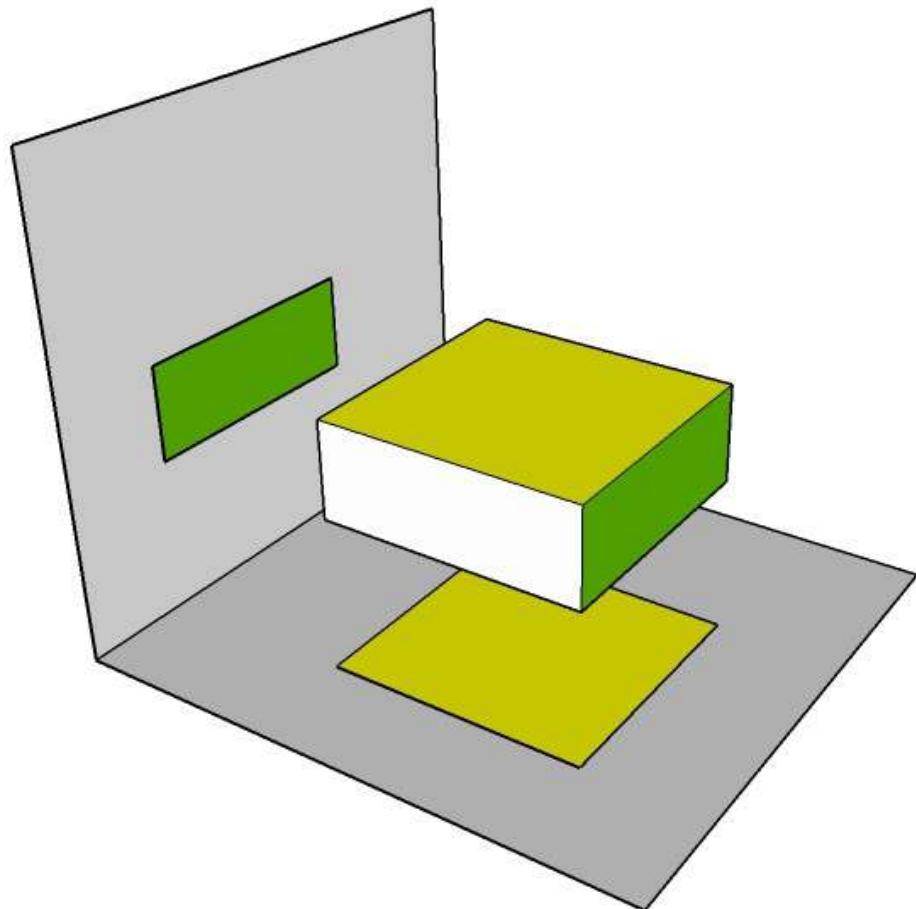
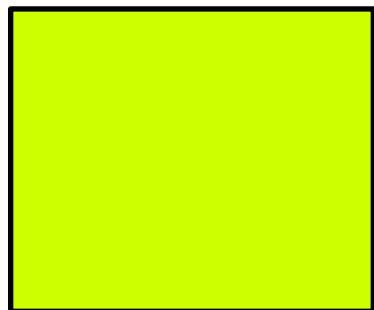


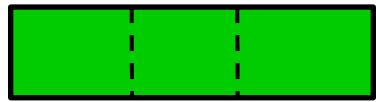




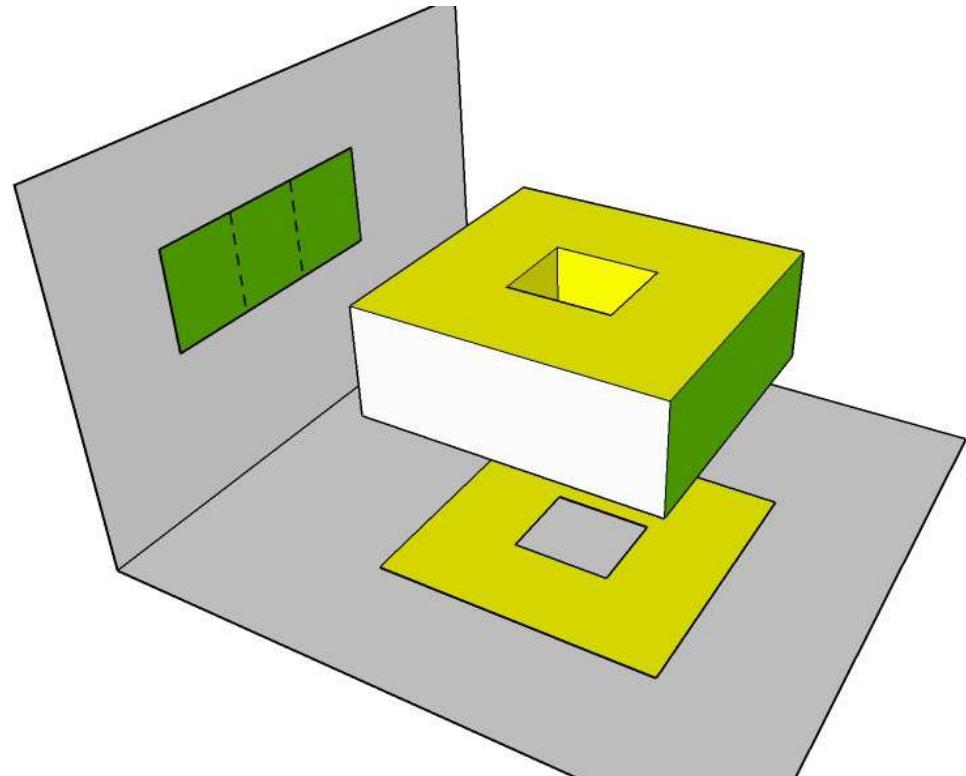
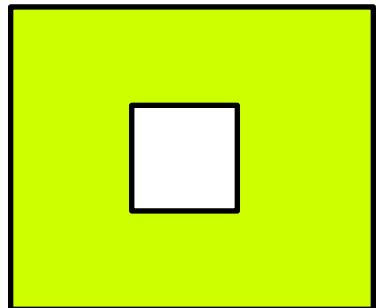


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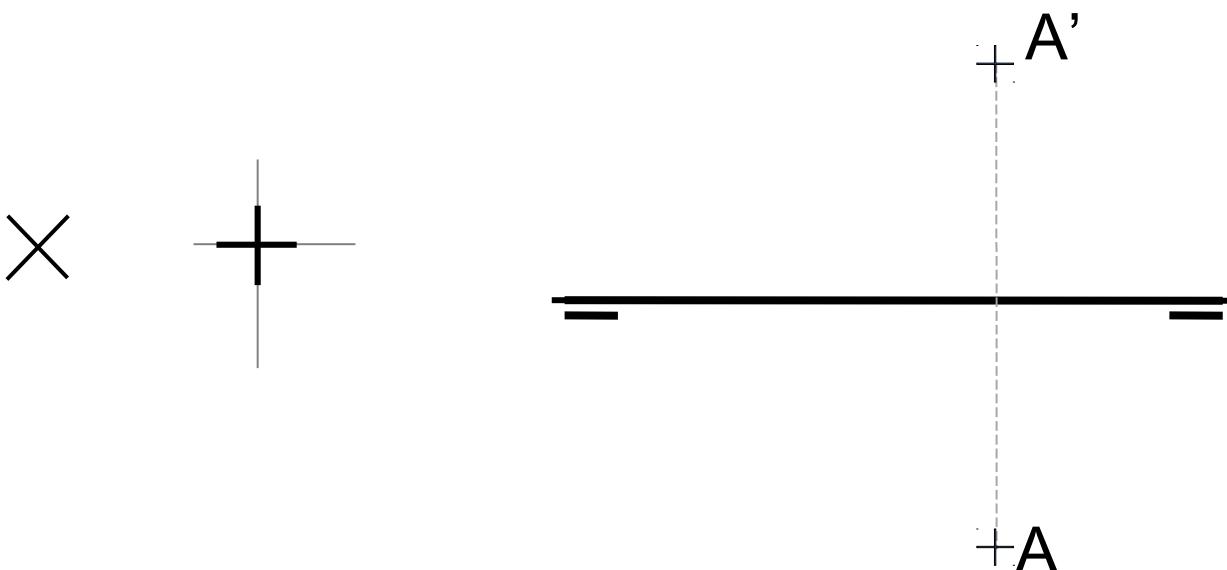
= =



REPRESENTAÇÃO DO PONTO

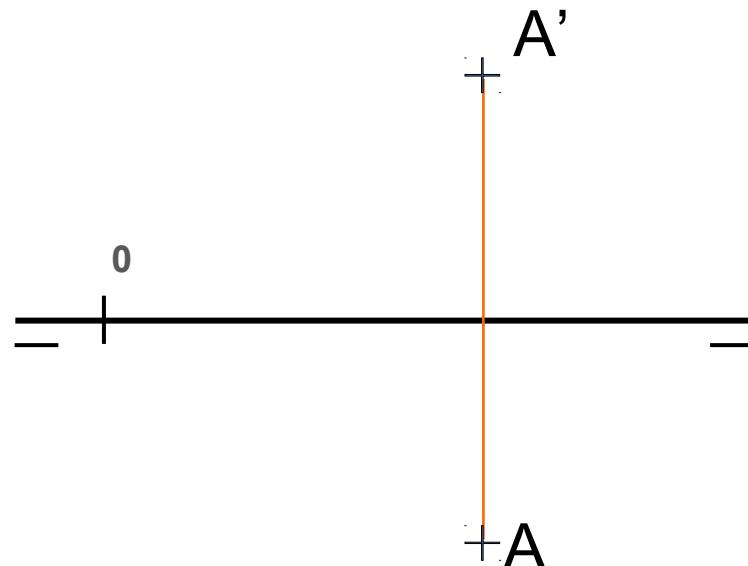
DETERMINAÇÃO DA ÉPURA DO PONTO

UM PONTO, POR DEFINIÇÃO É O LU-GAR GEOMÉTRICO DA INTERSEÇÃO ENTRE DUAS RETAS.
SEGUINDO ESTA DEFINIÇÃO, A REPRESENTAÇÃO SERÁ DOIS SEGUIMENTOS DE RETAS:



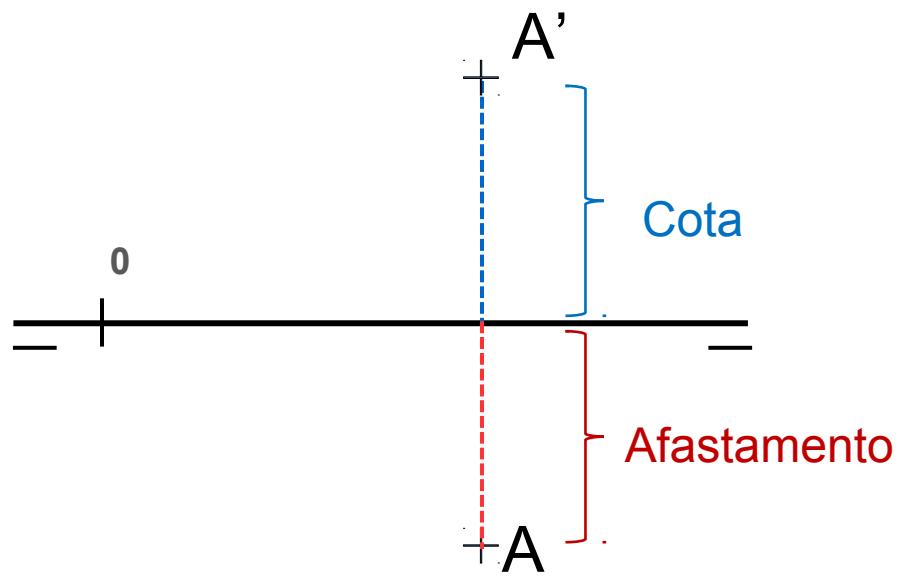
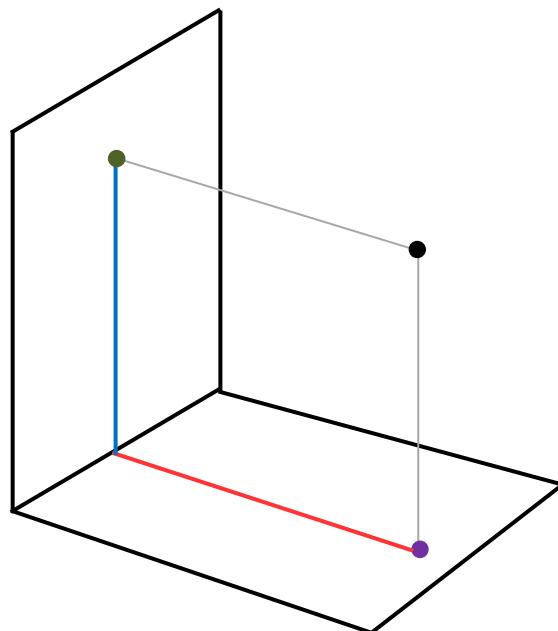
POSIÇÕES DO PONTO

- Os segmentos de retas que unem as projeções vertical **A'** e horizontal **A** à Linha de Terra são denominadas por **Linhas de Chamada de (A)**. Na Geometria Descritiva onde se utiliza o Sistema de Projeções Ortogonais, as Linhas de Chamada serão sempre perpendiculares à Linha de Terra.



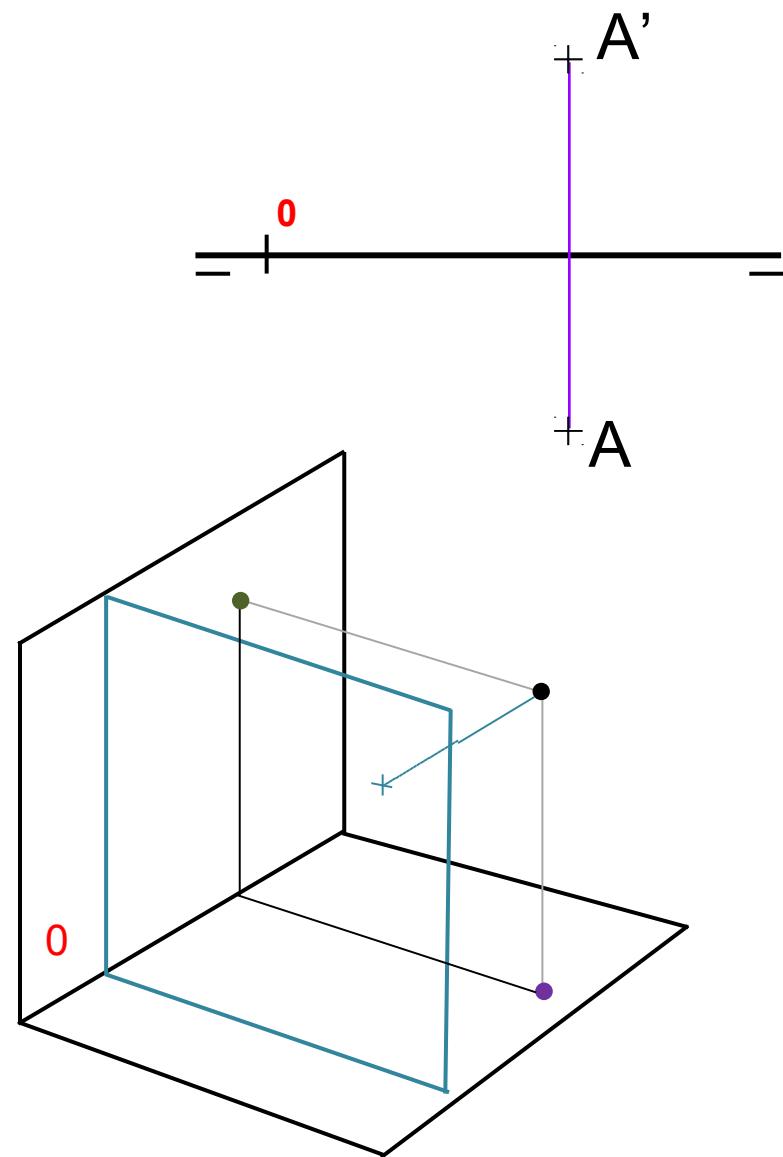
POSIÇÕES DO PONTO

- A distância da projeção vertical A' até $(\pi\pi')$ representa **a cota** do ponto (A).
- A distância da projeção horizontal A até a $(\pi\pi')$ representa **o afastamento** deste ponto.



POSIÇÕES DO PONTO

- A abscissa do ponto (A), que corresponde no espaço à distância do ponto objetivo até um plano lateral de projeções será, em épura, representada pela distância horizontal da linha de chamada de (A) até a interseção do plano lateral com a ($\pi\pi'$), ponto este marcado arbitrariamente sobre ($\pi\pi'$).
- Adotamos uma origem das abscissas na linha de terra do sistema quando esta não for indicada.



POSIÇÕES DO PONTO

Coordenadas descritivas

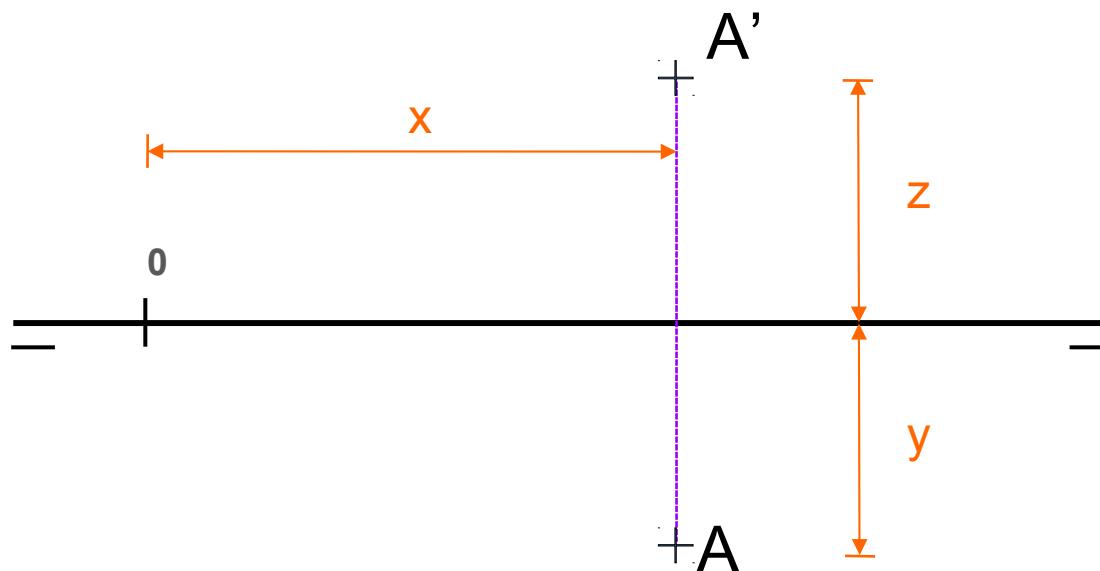
- As coordenadas descritivas de um ponto objetivo serão sempre apresentadas conforme a ordem abaixo:

Abscissa = x;

Afastamento = y;

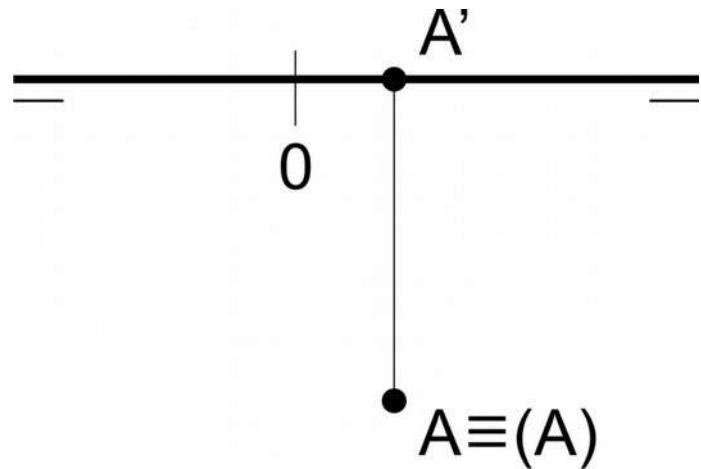
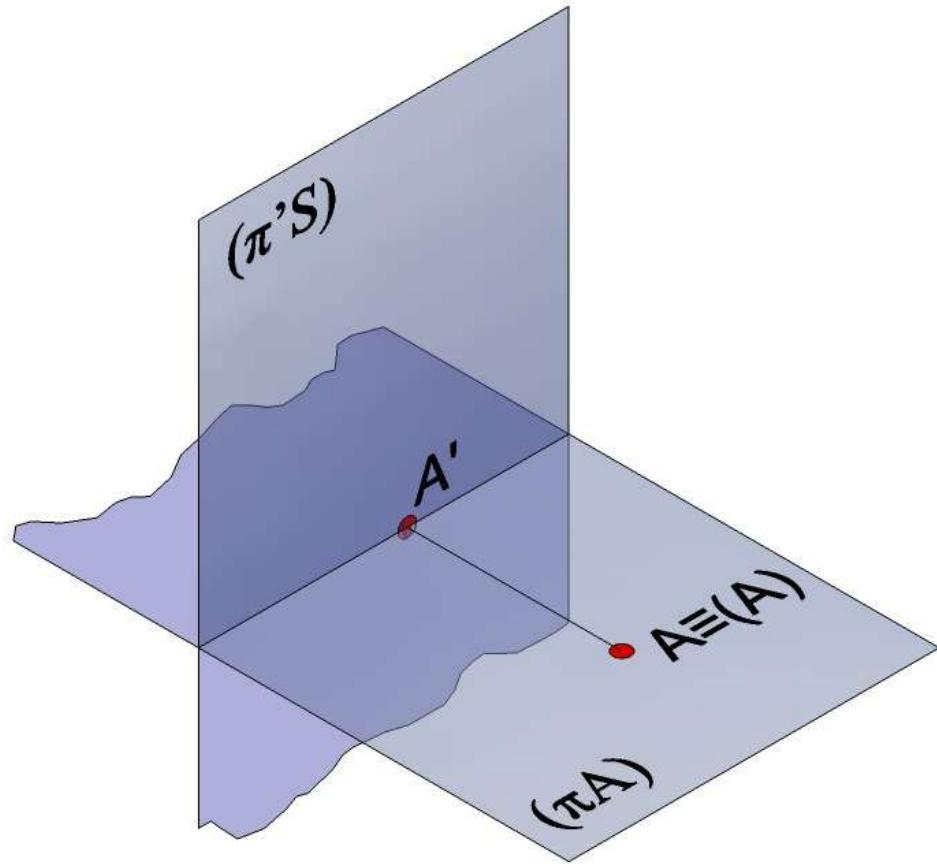
Cota = z.

- Assim, para o ponto (A) tem-se a seguinte notação: **(A) [x ; y ; z]**



Ponto localizado no semi-plano horizontal anterior (π_A)

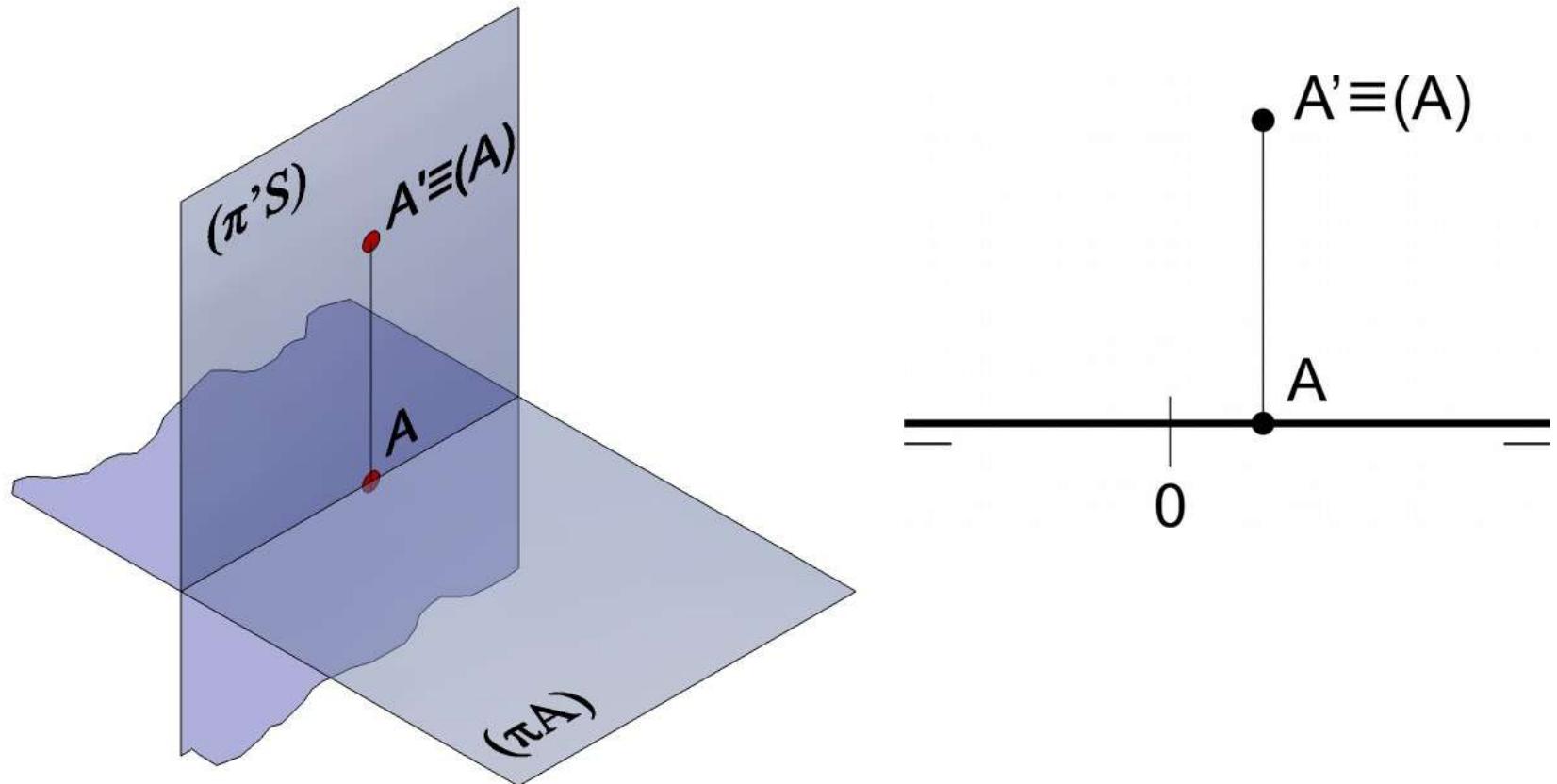
- A cota é nula, o afastamento é positivo. Em épura, a projeção vertical apresenta-se sobre ($\pi\pi'$) e a projeção horizontal, abaixo de ($\pi\pi'$).



POSIÇÕES DO PONTO

Ponto localizado no semi-plano vertical superior (π' 's)

- O afastamento é nulo, a cota é positiva. Em épura, a projeção horizontal apresenta-se sobre ($\pi\pi'$) e a projeção vertical, acima de ($\pi\pi'$).



POSIÇÕES DO PONTO

Dar a épura dos pontos:

- a) (A) [3 ; 2 ; 0]
- b) (B) [0 ; 1; 1]
- c) (C) [0 ; 1,5 ; 3]
- d) (D) [5; 0; 0]