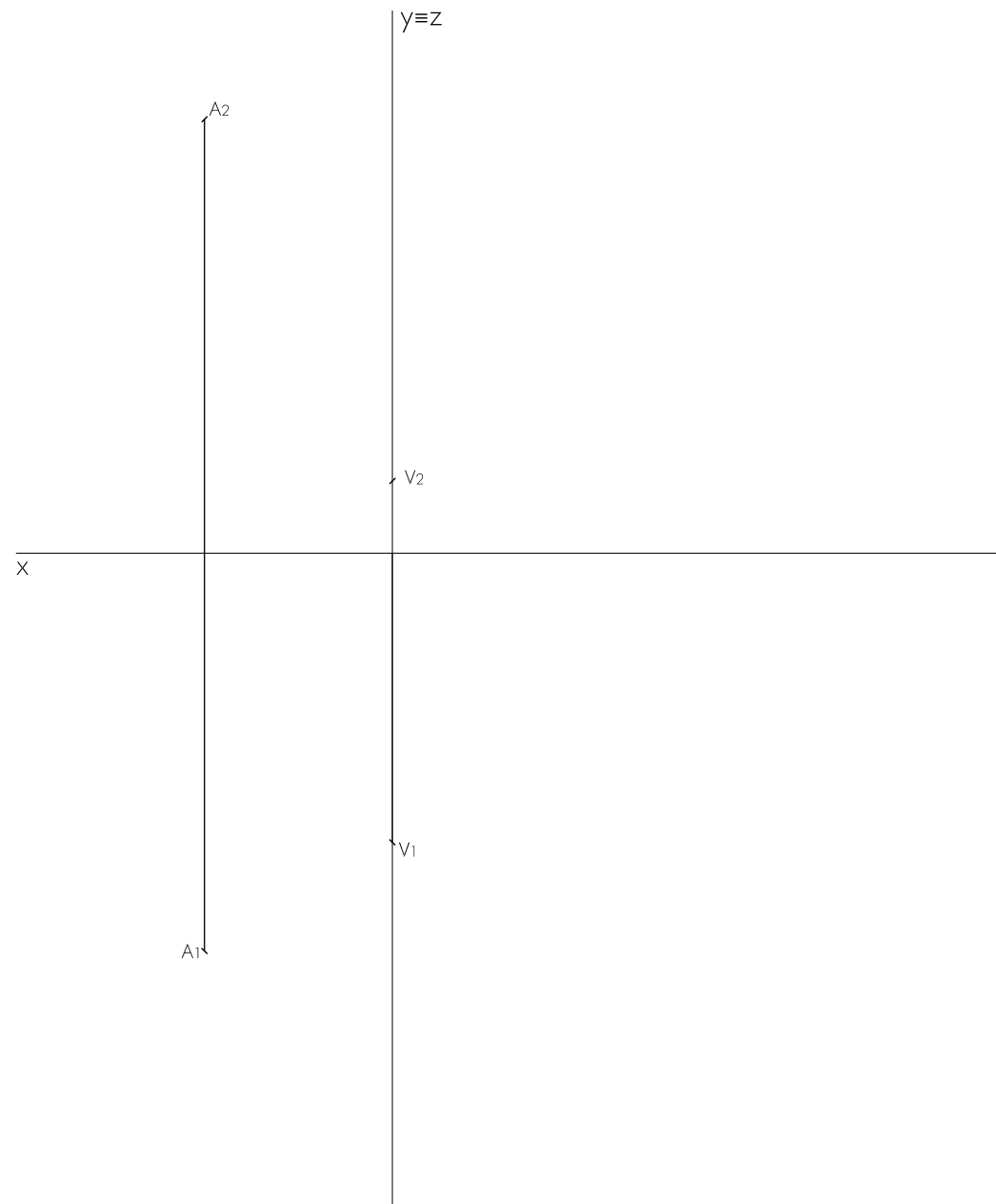
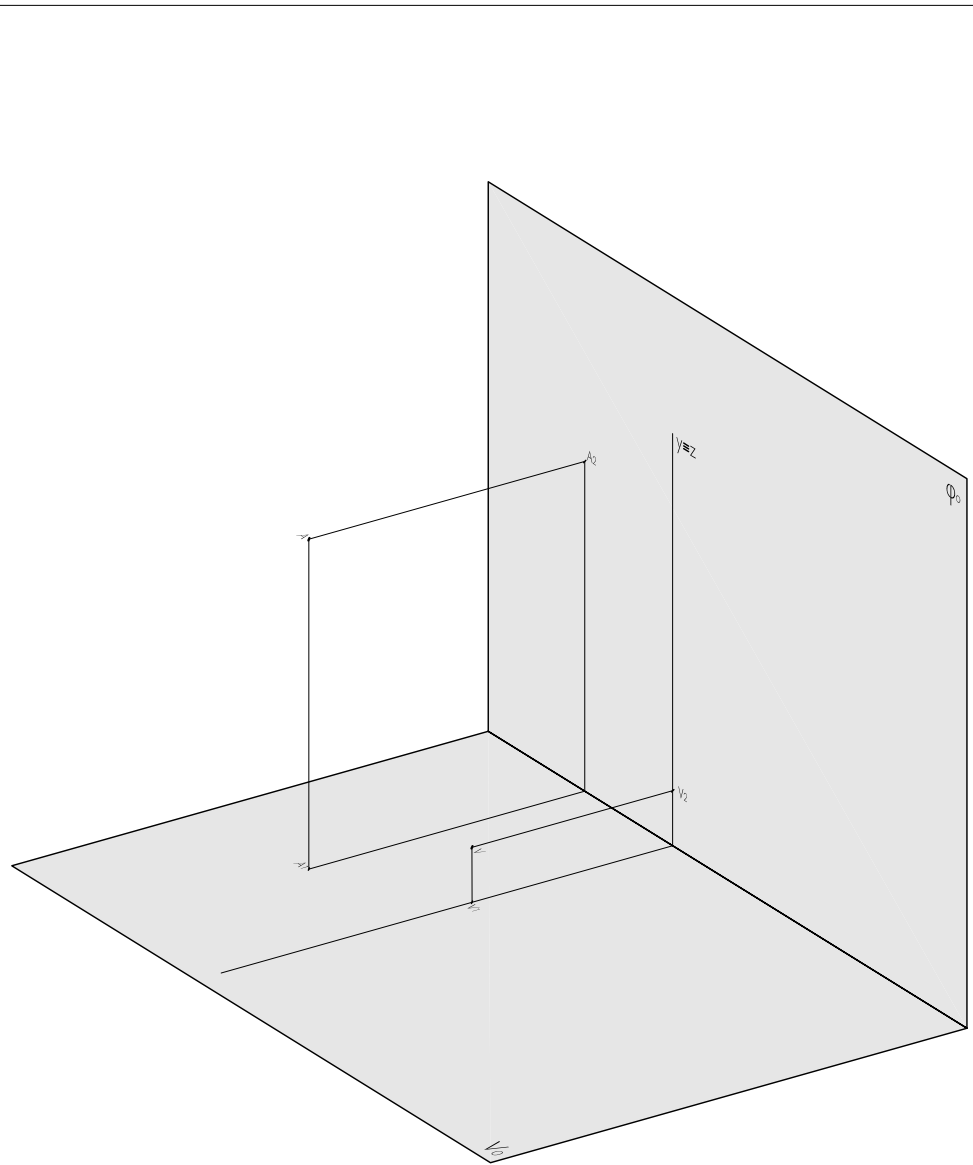


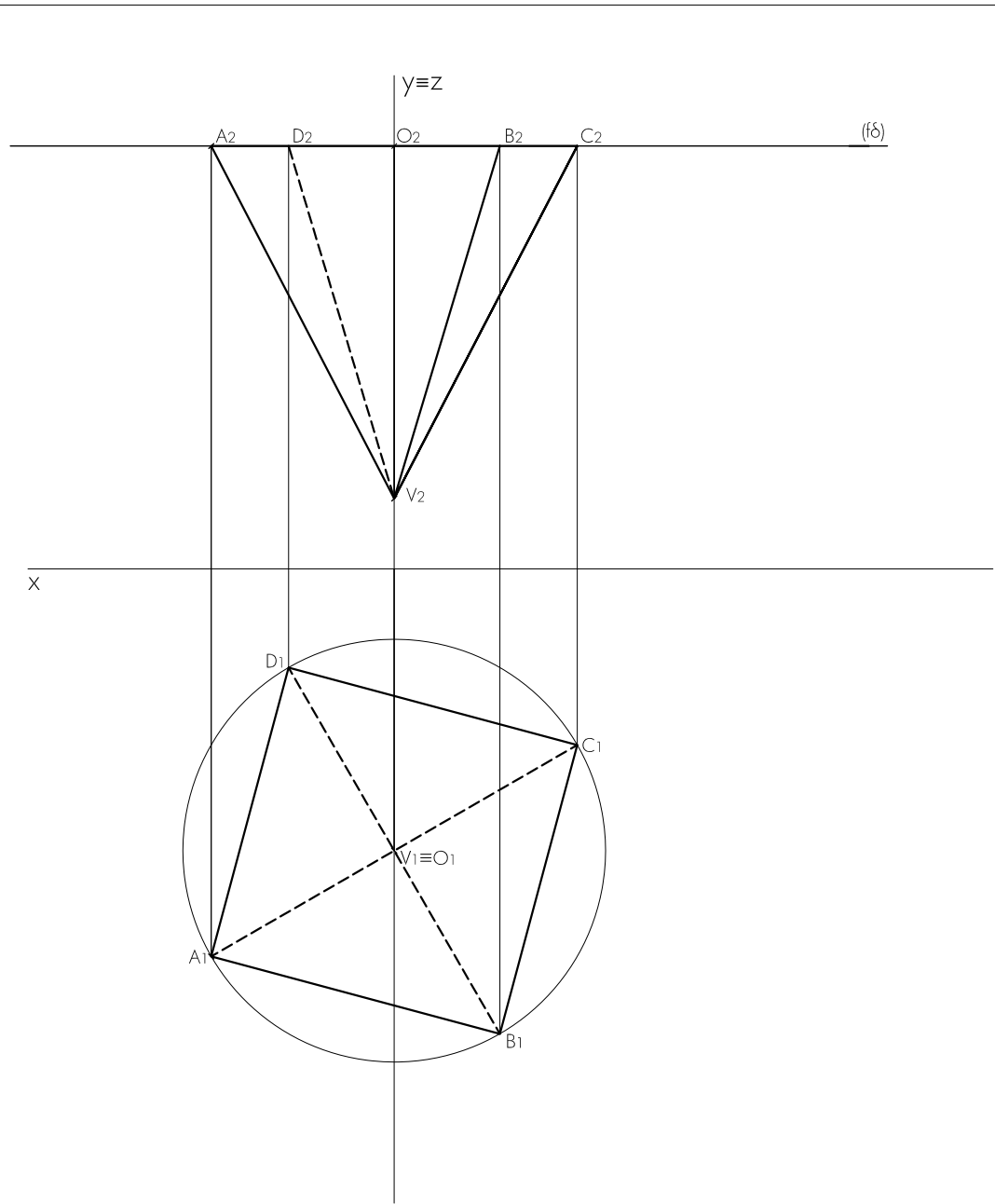
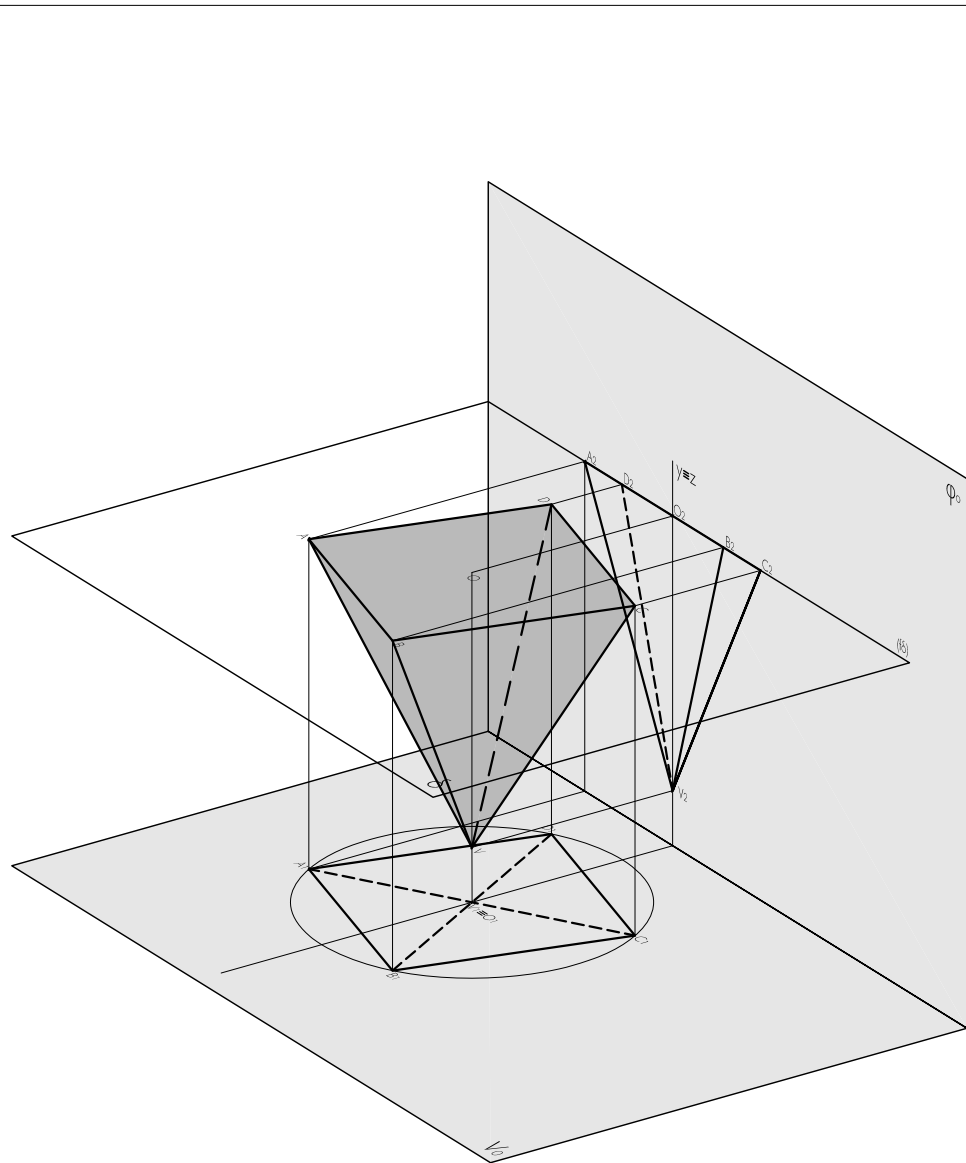
Represente pelas suas projecções uma pirâmide quadrangular regular assente num plano horizontal e situada no 1º diedro, sendo dados:

- o ponto A (2,6; 5,5; 6) é um dos vértices da base ABCD;
- V (0; 4; 1).

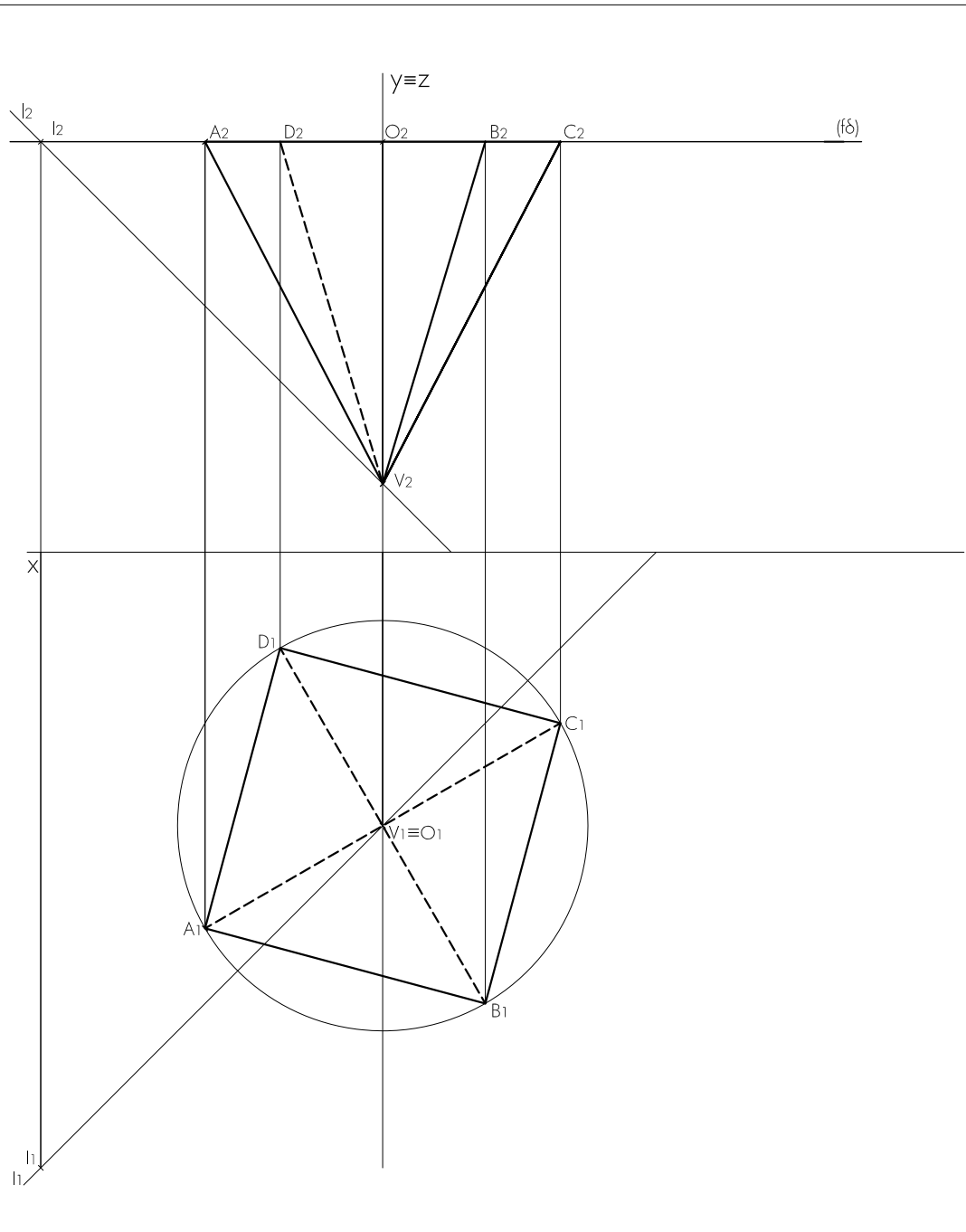
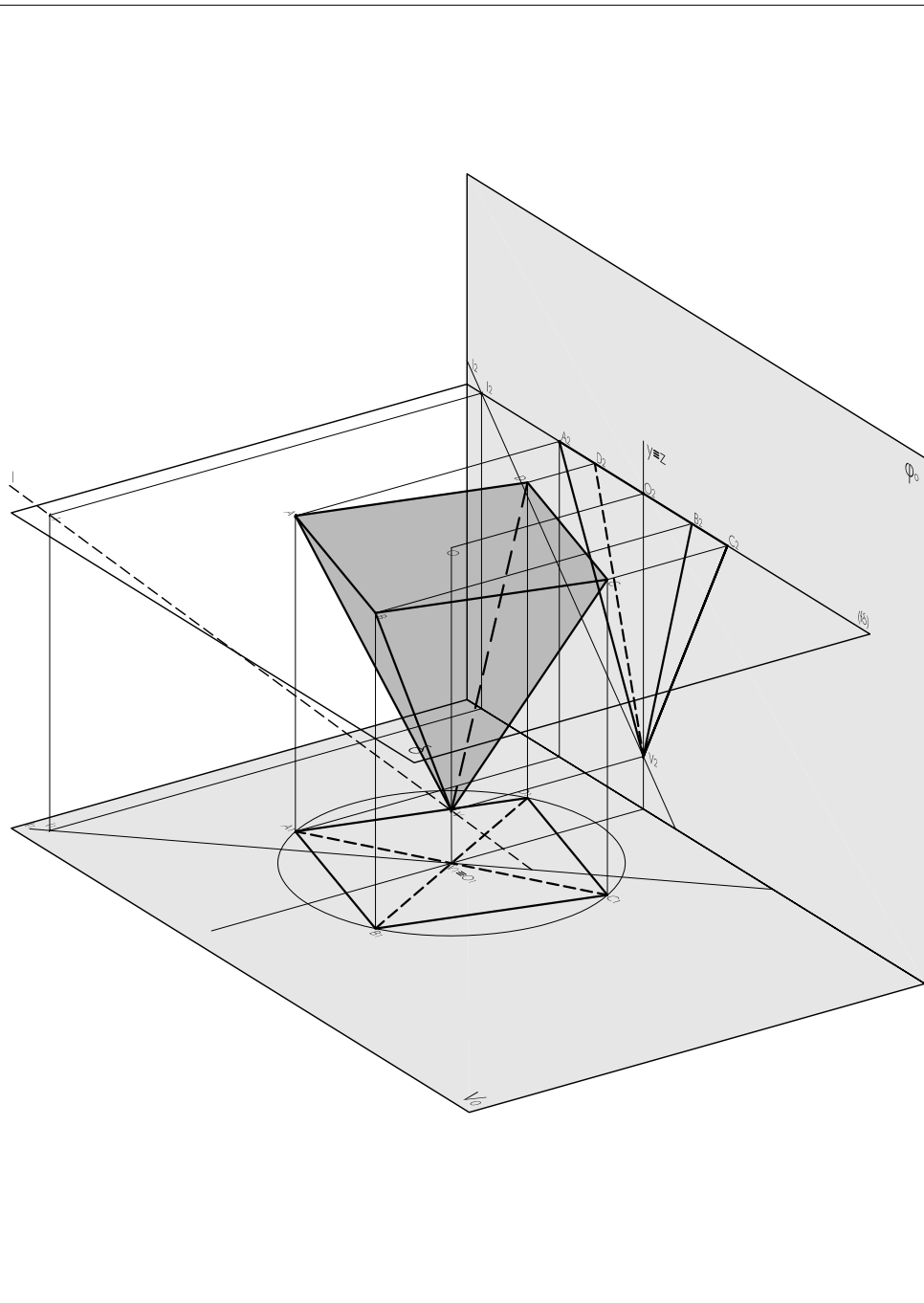
Determine as sombras própria e projectada nos planos de projecção, considerando para o efeito a direcção luminosa convencional.



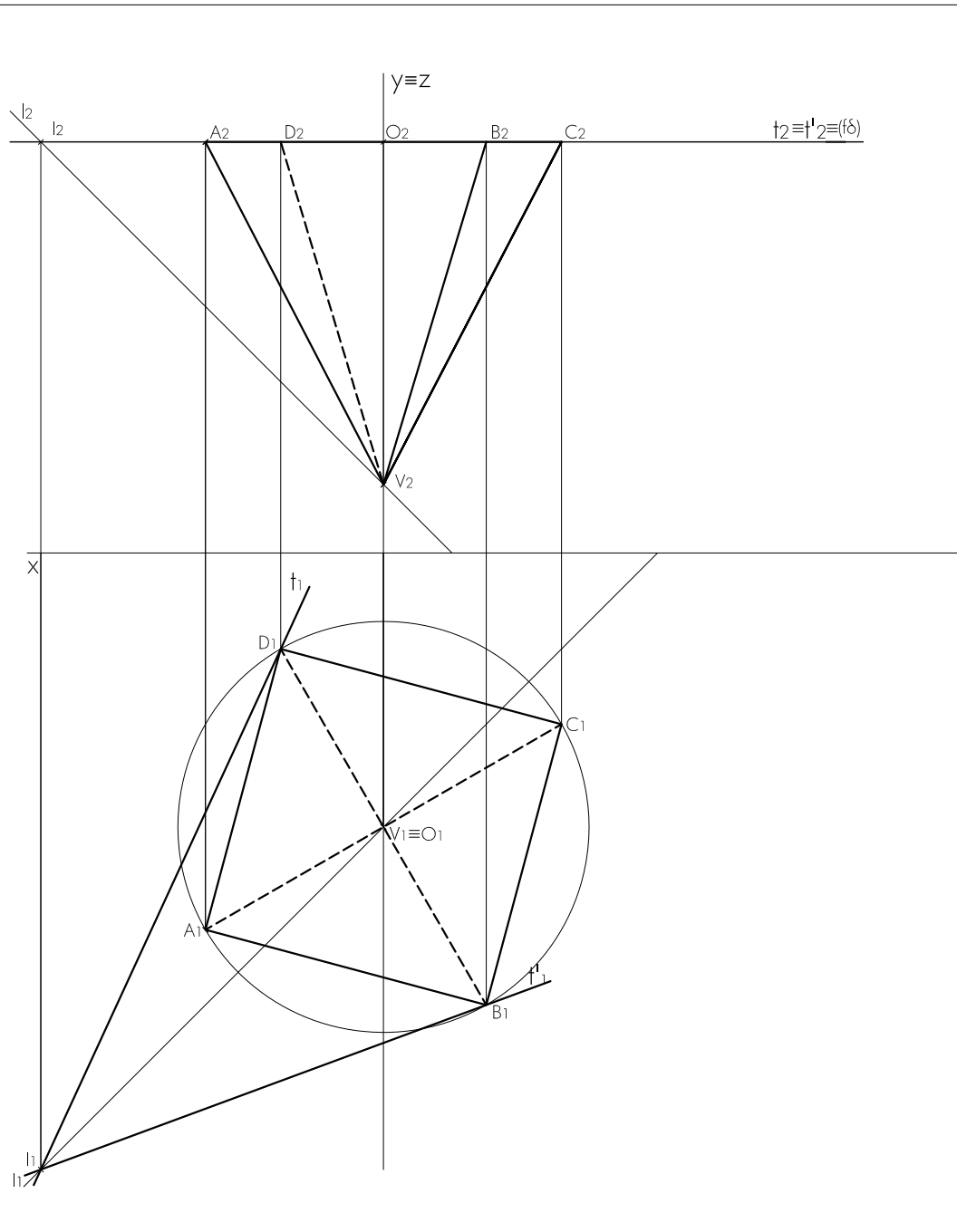
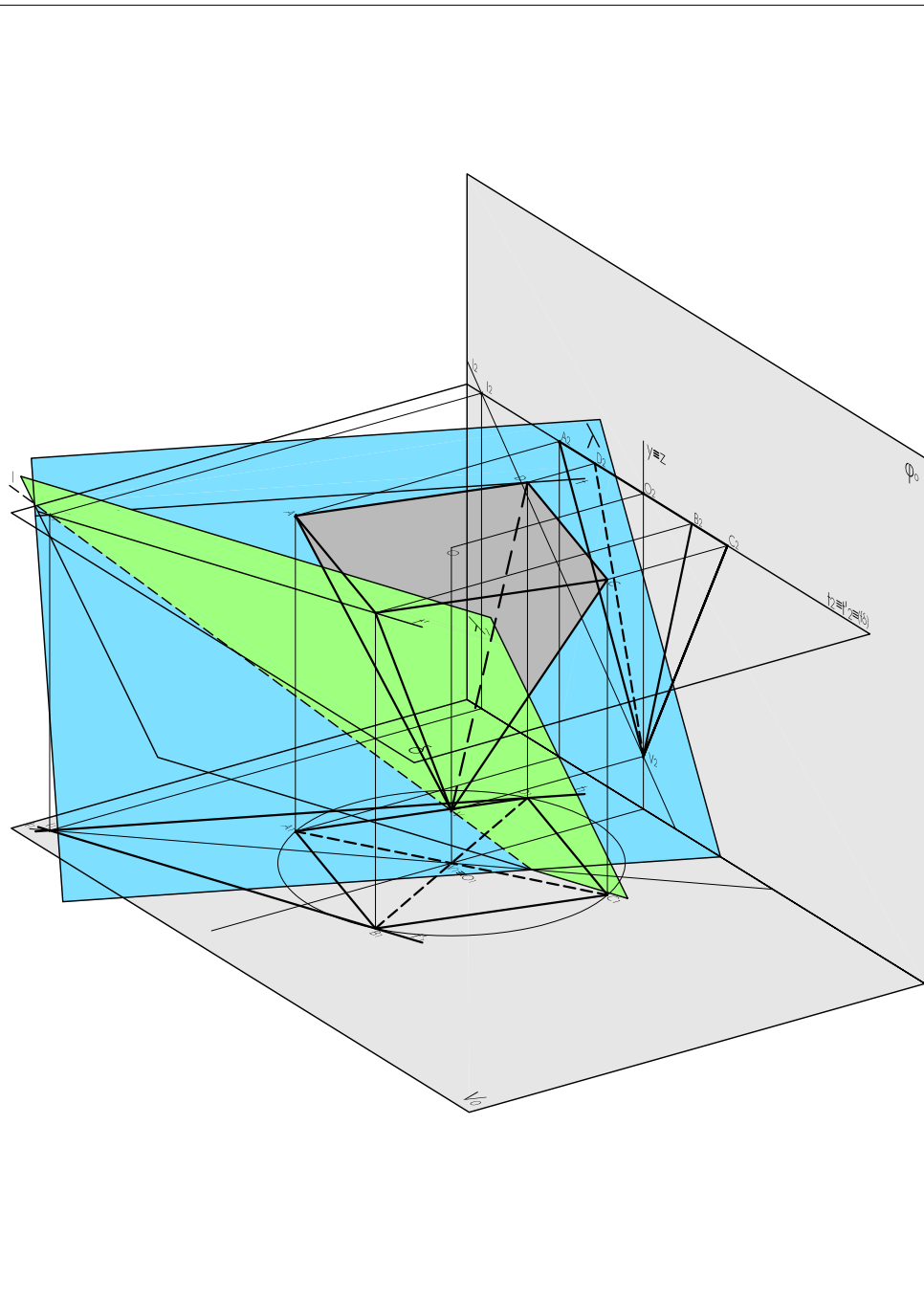
1) tradução gráfica dos dados;



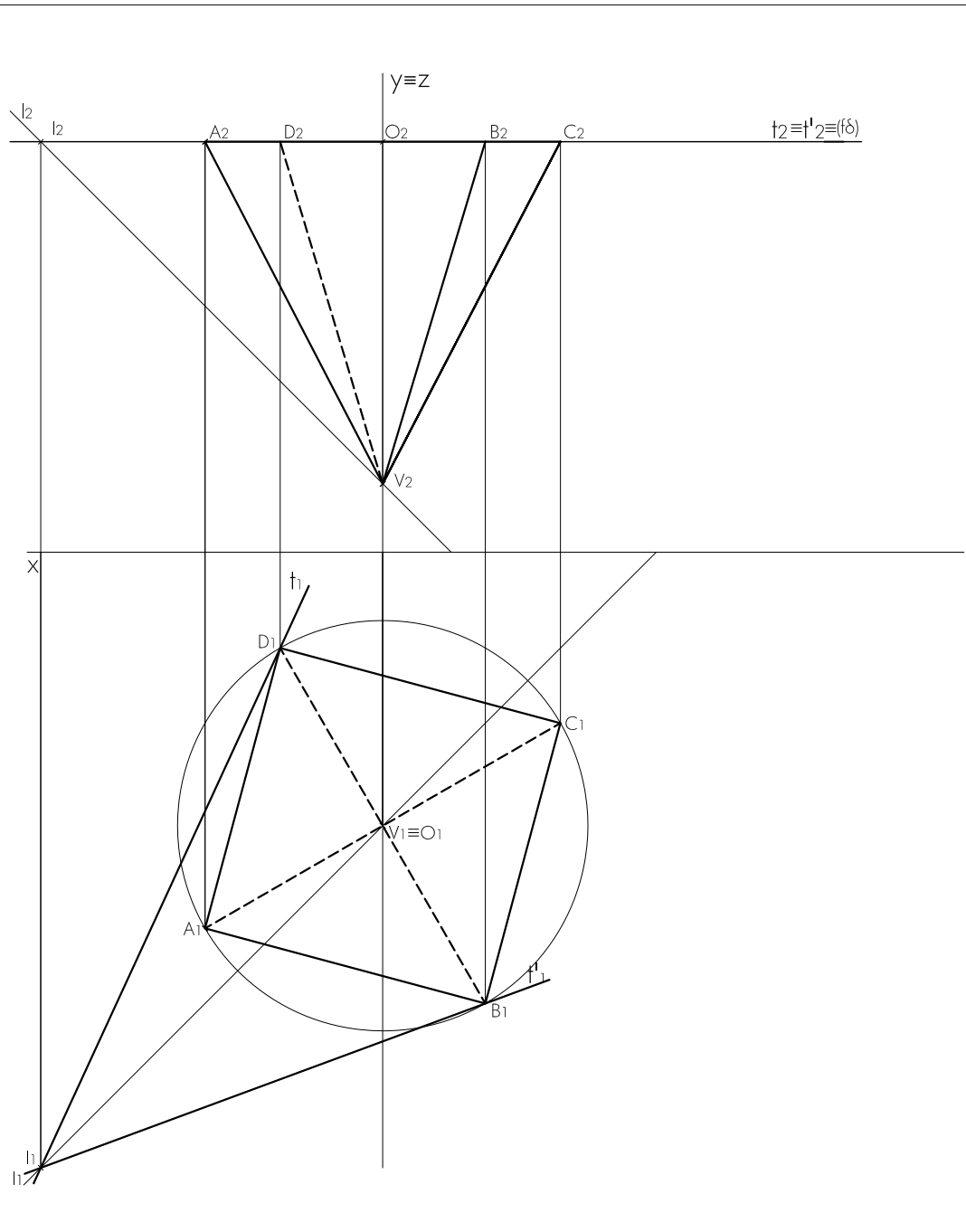
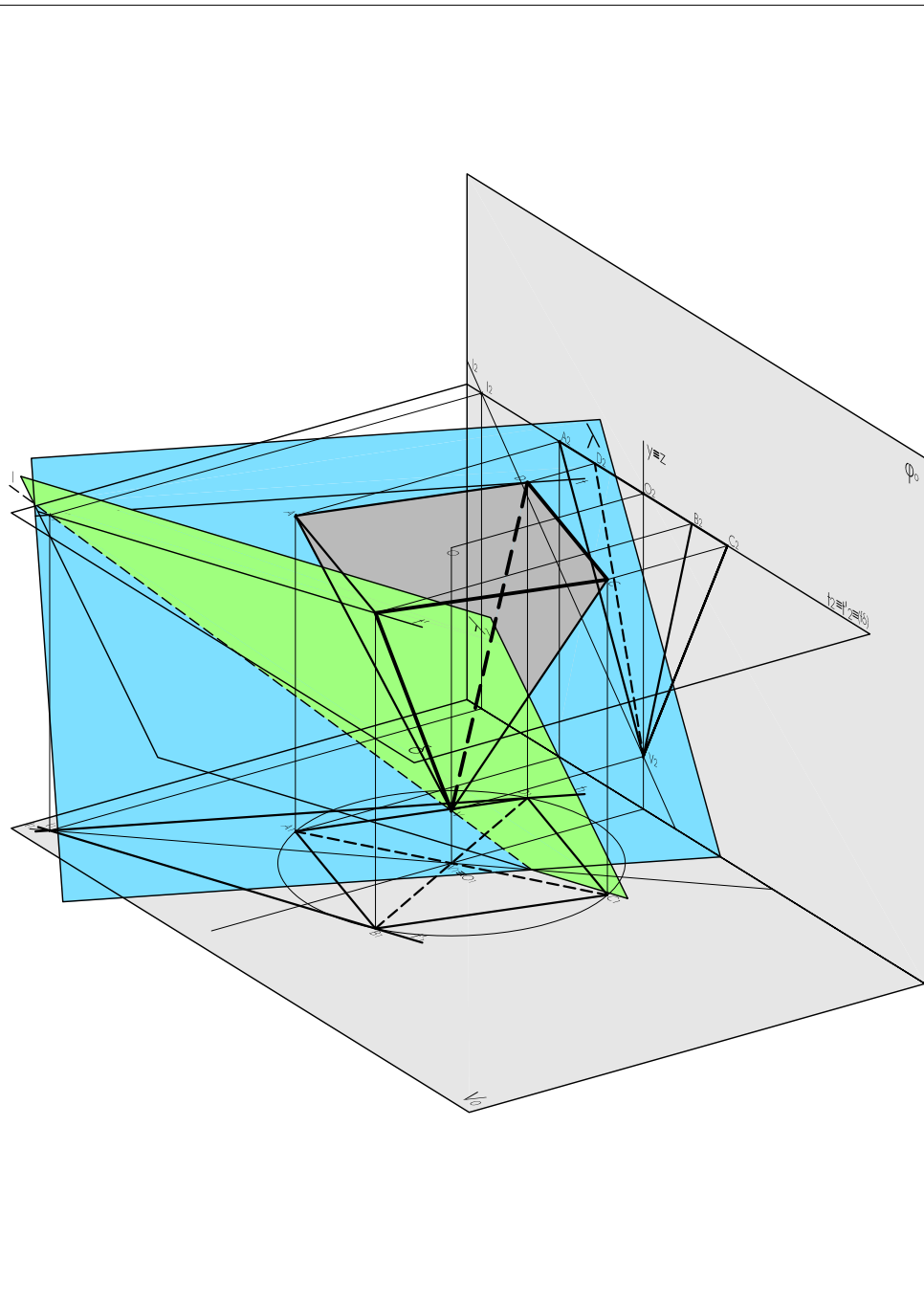
2) determinação das projecções do sólido;



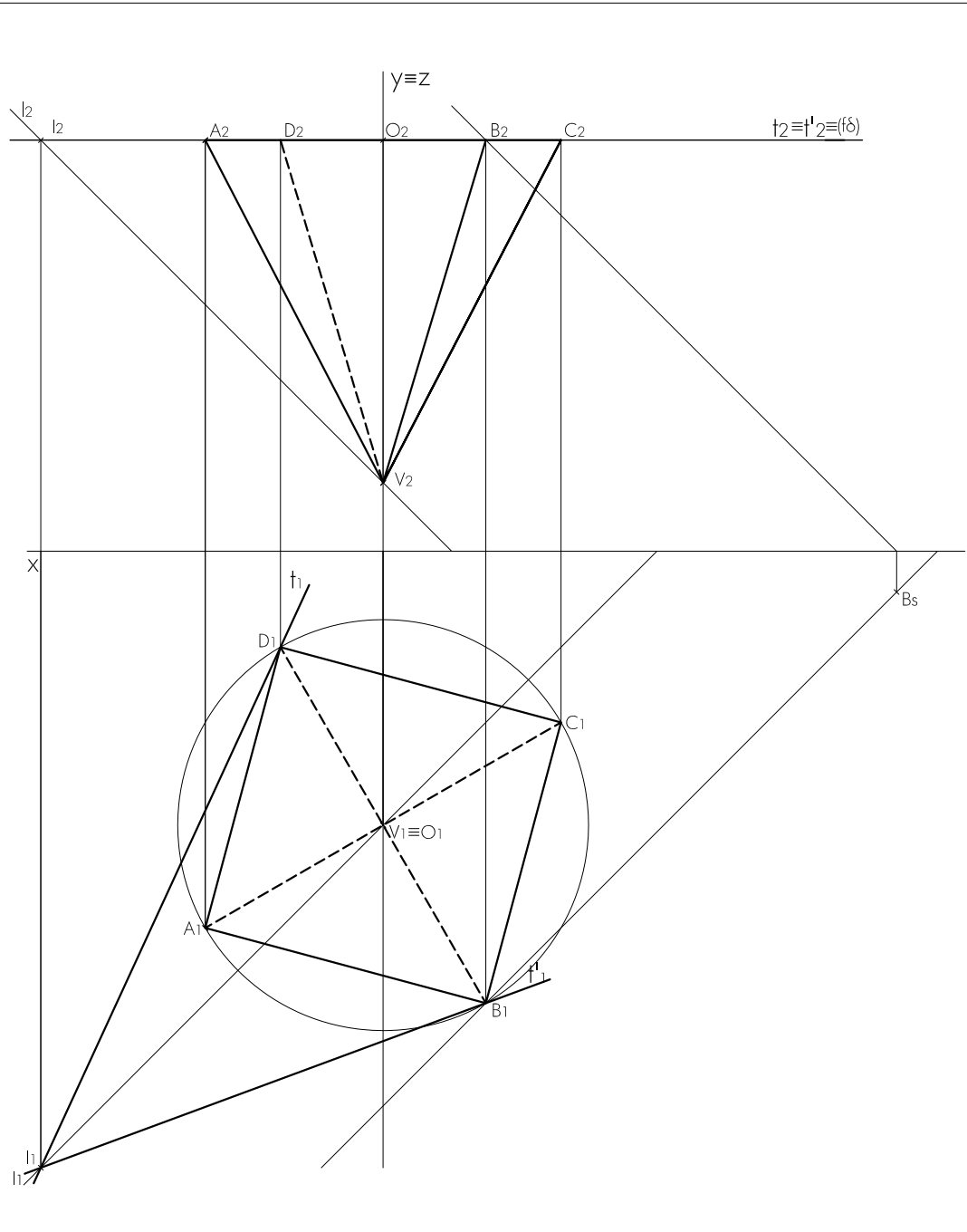
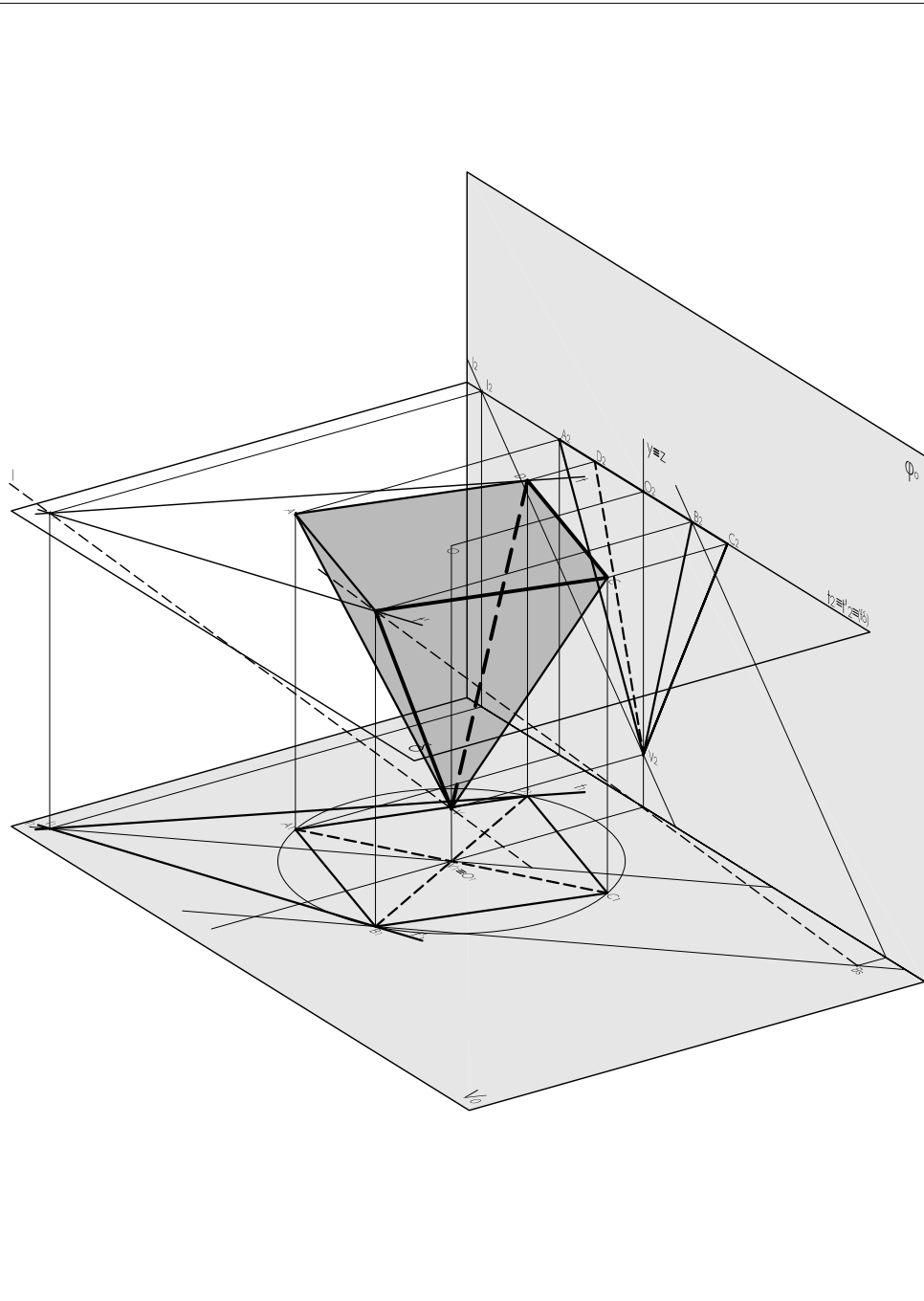
3) traçado de raio luminoso pela vértice V; 4) determinação do ponto I de intersecção com o plano da base  $\delta$ ;



5) traçado das rectas tangentes à base da pirâmide para determinação da Linha Separatriz Luz|Sombra - LSLS; 6) determinar LSLS;

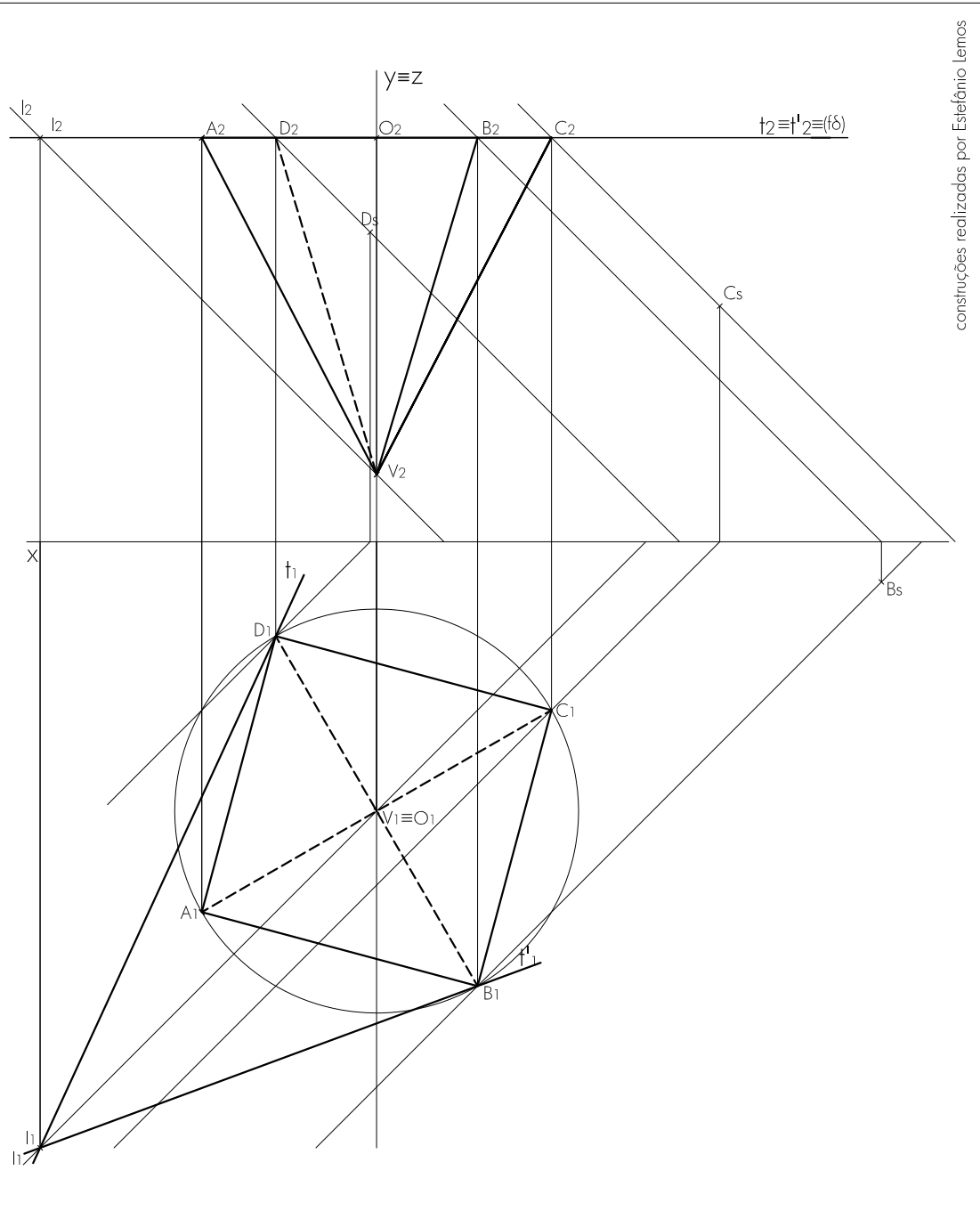
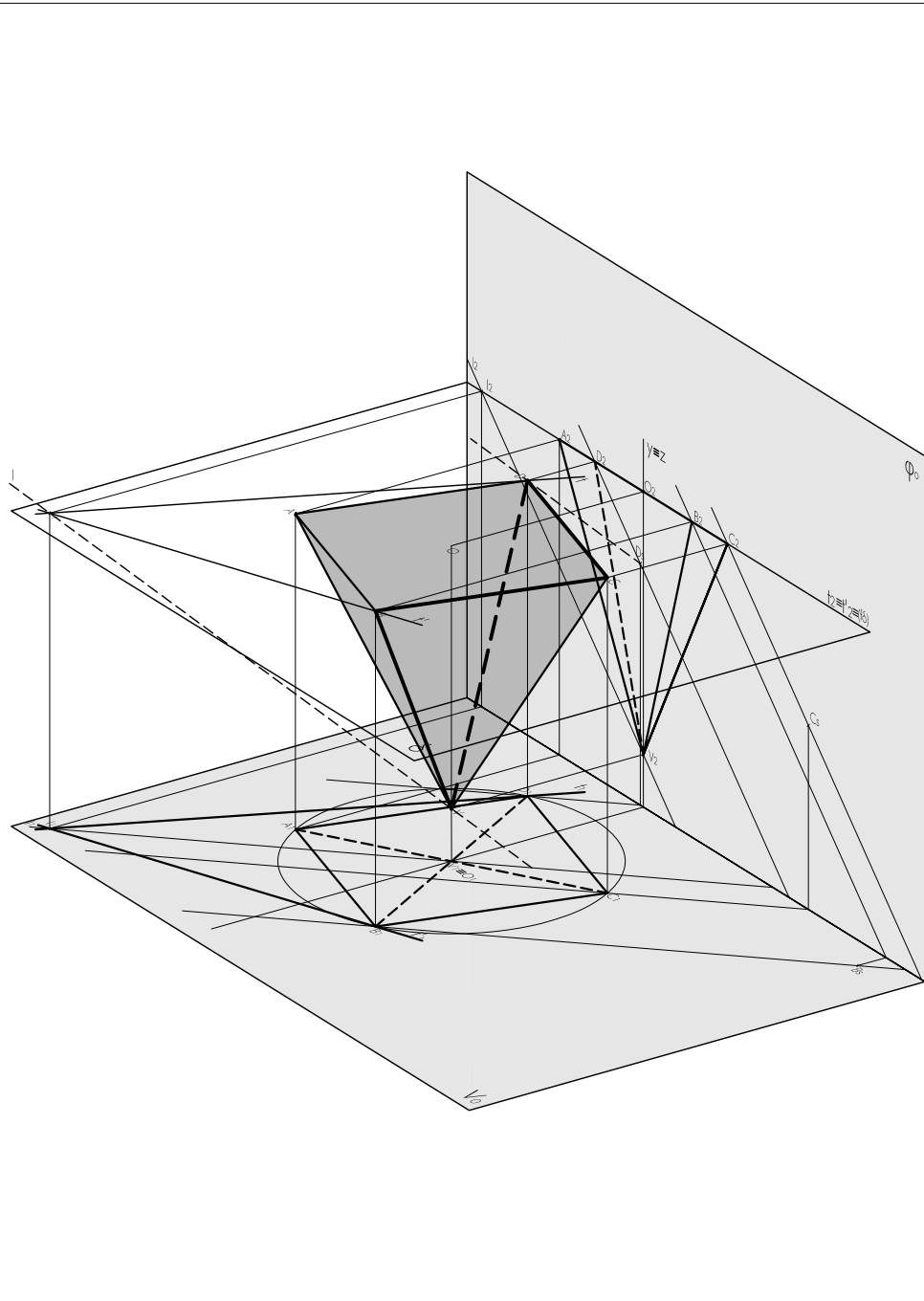


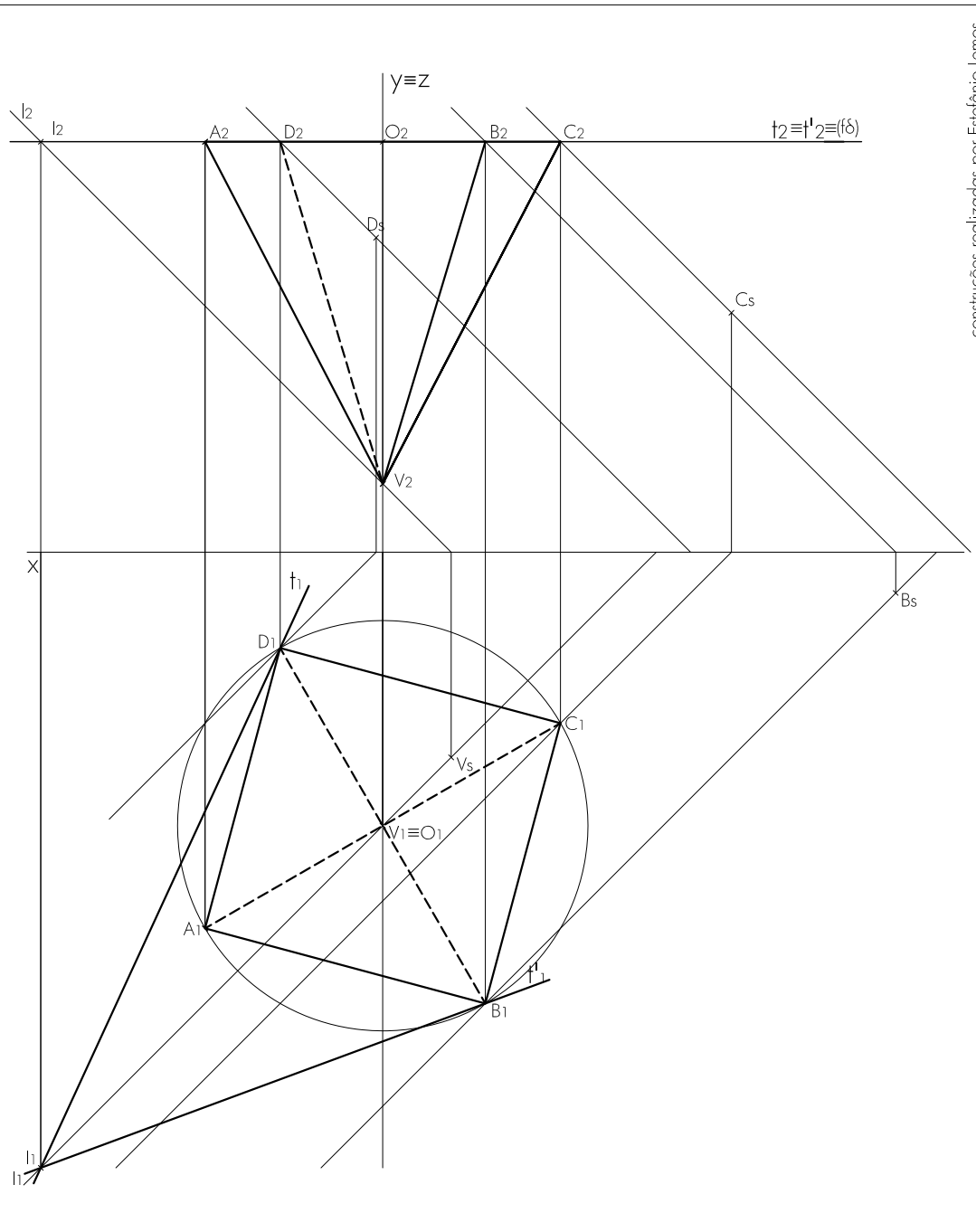
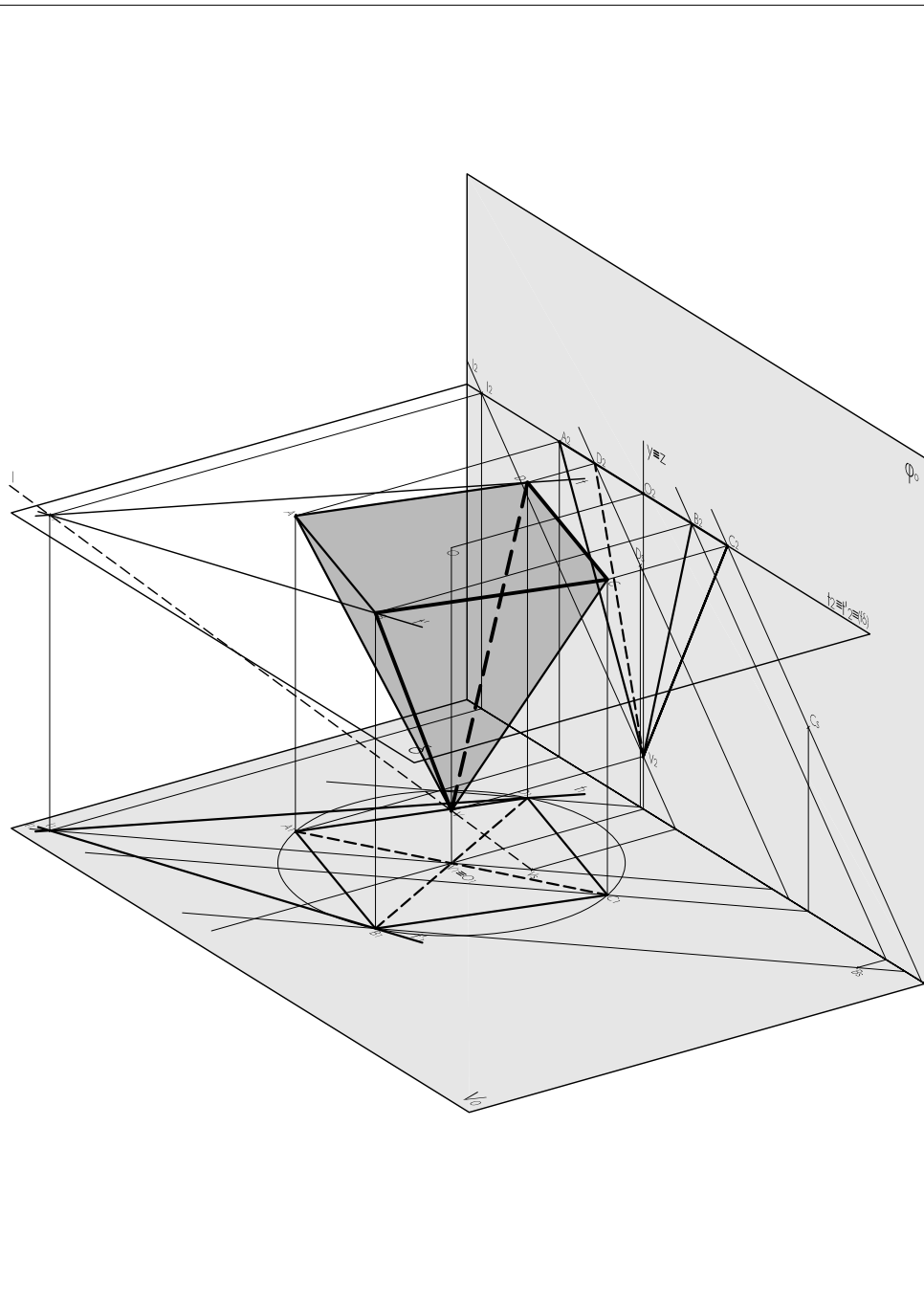
7) apenas as faces BCV e CDV estão em sombra, logo a Linha Separatriz Luz|Sombra é: BCDV;



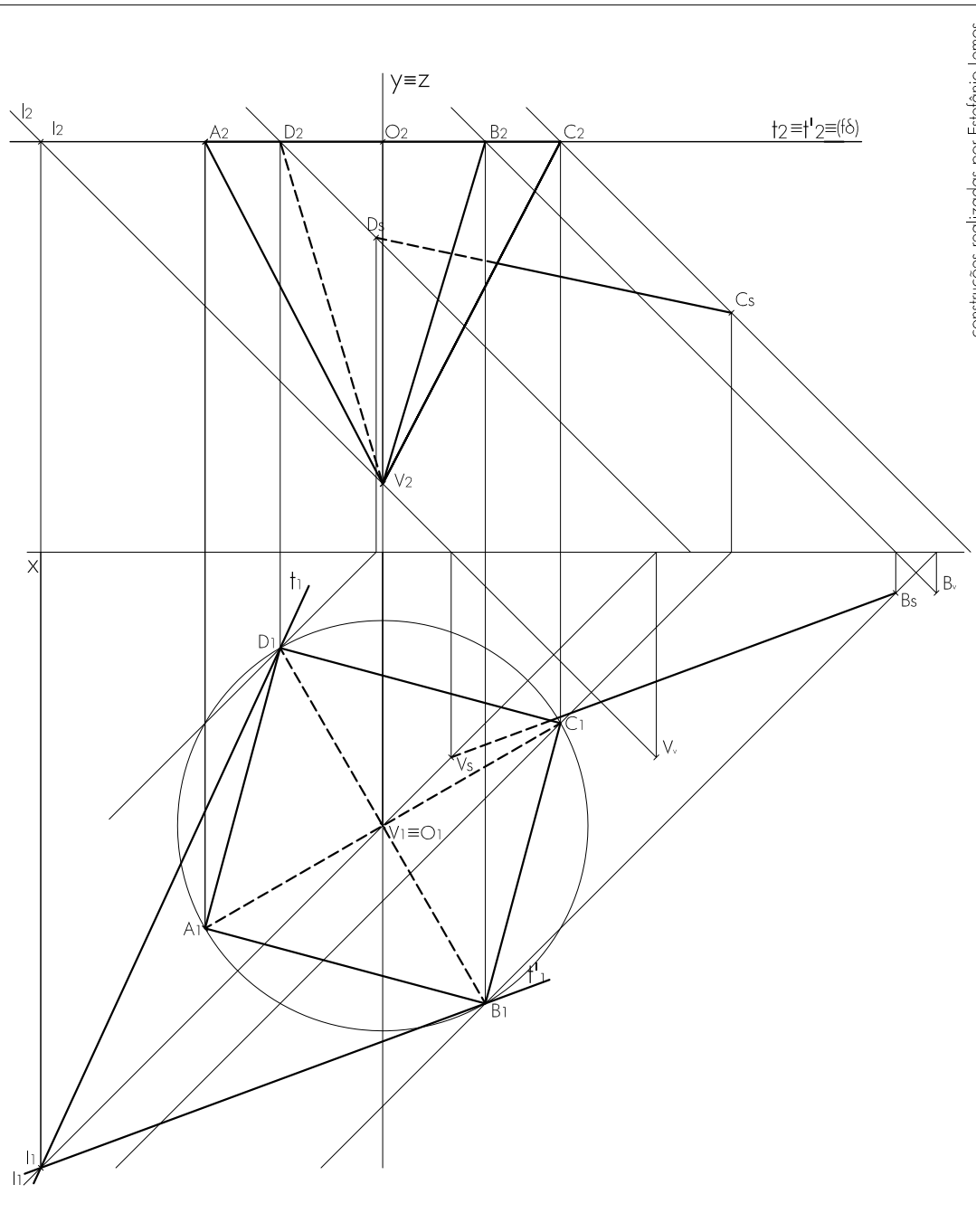
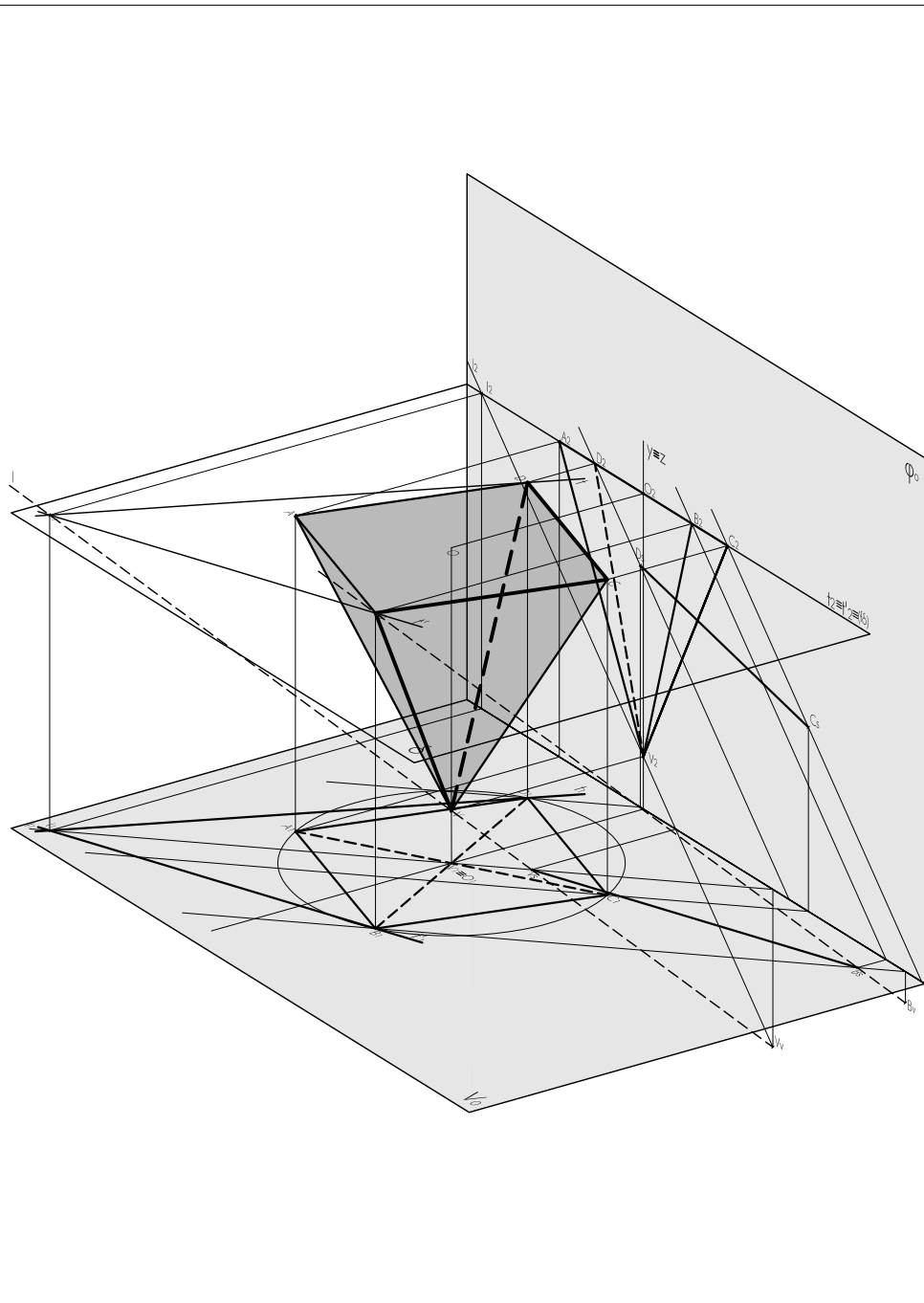




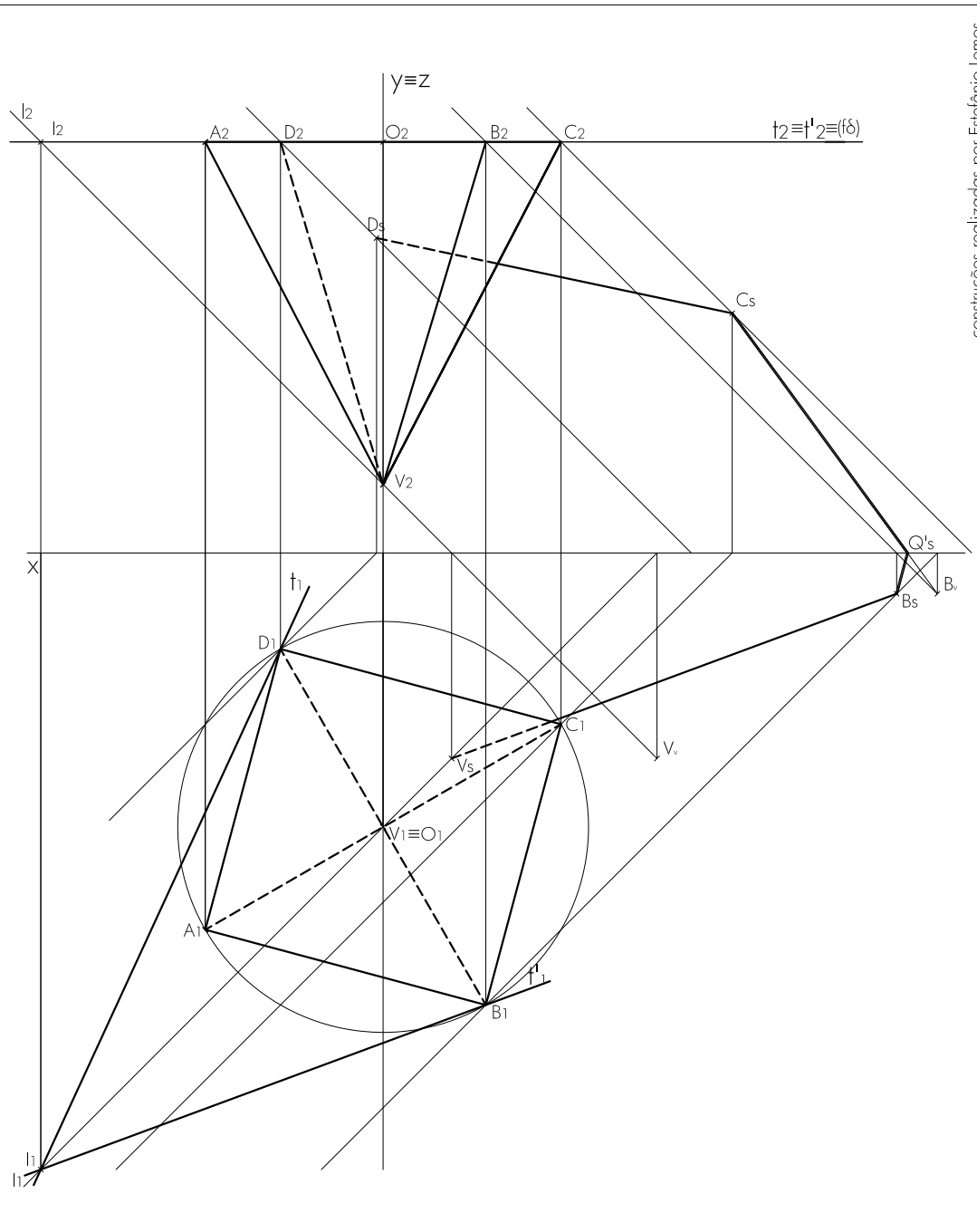
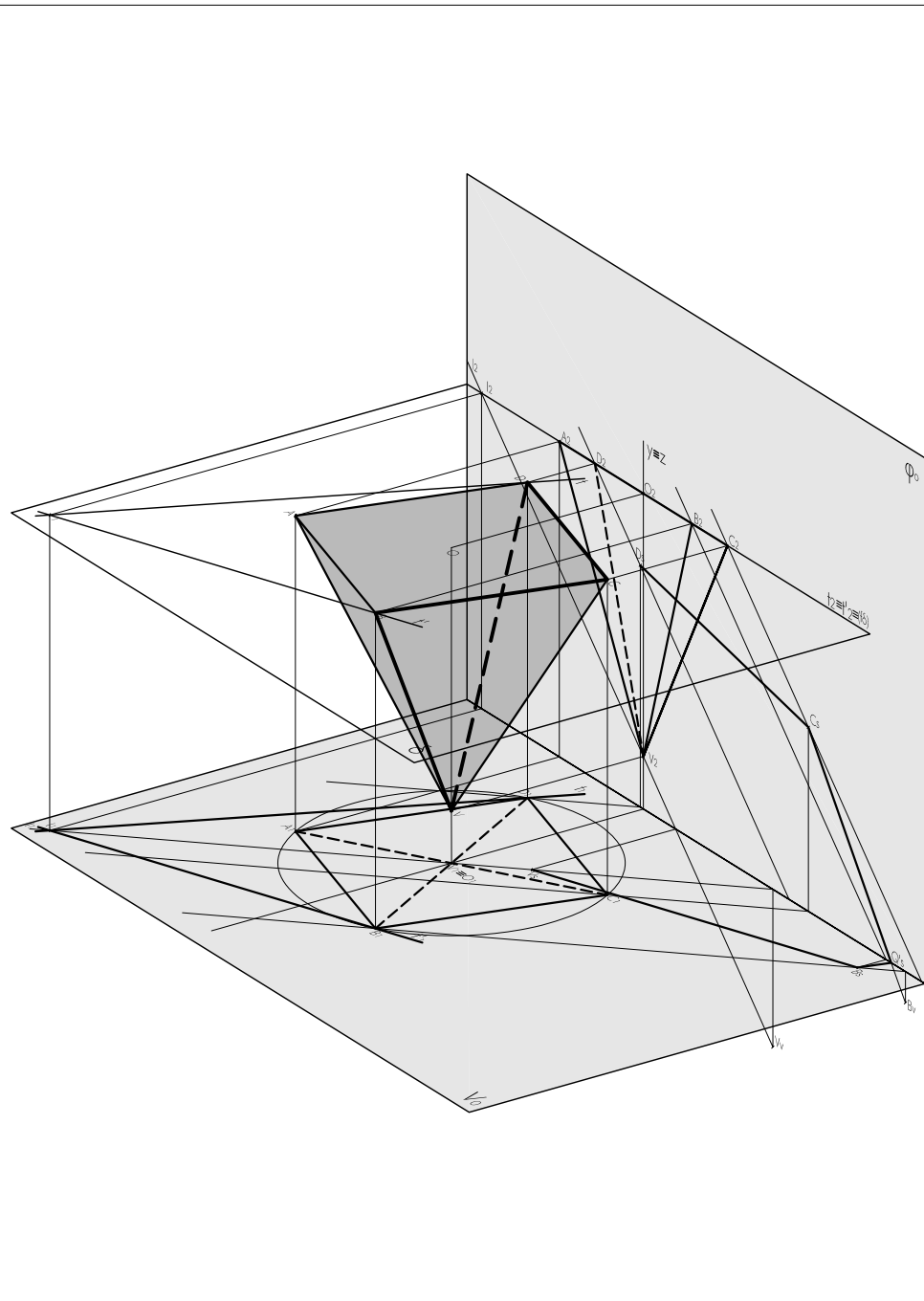




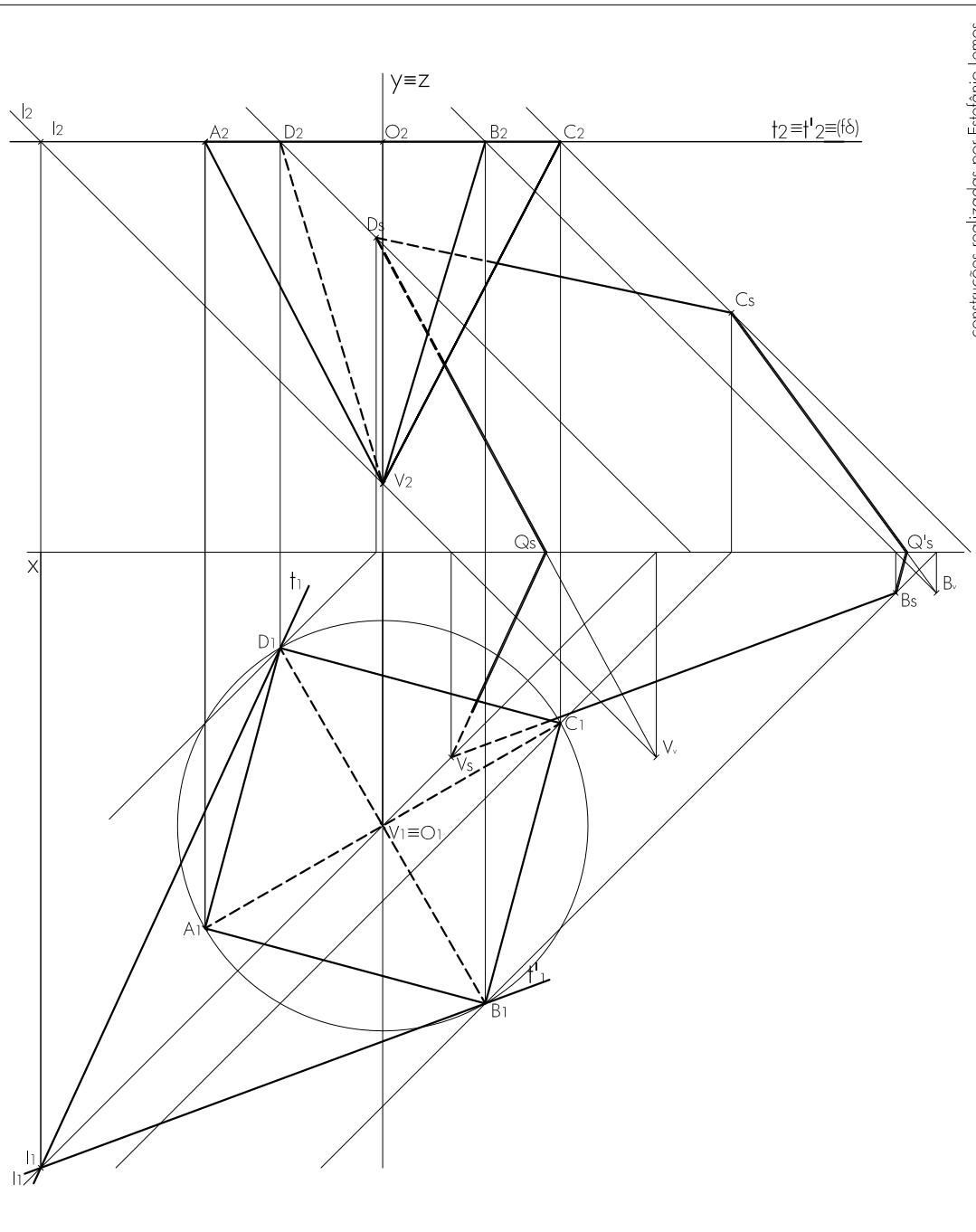
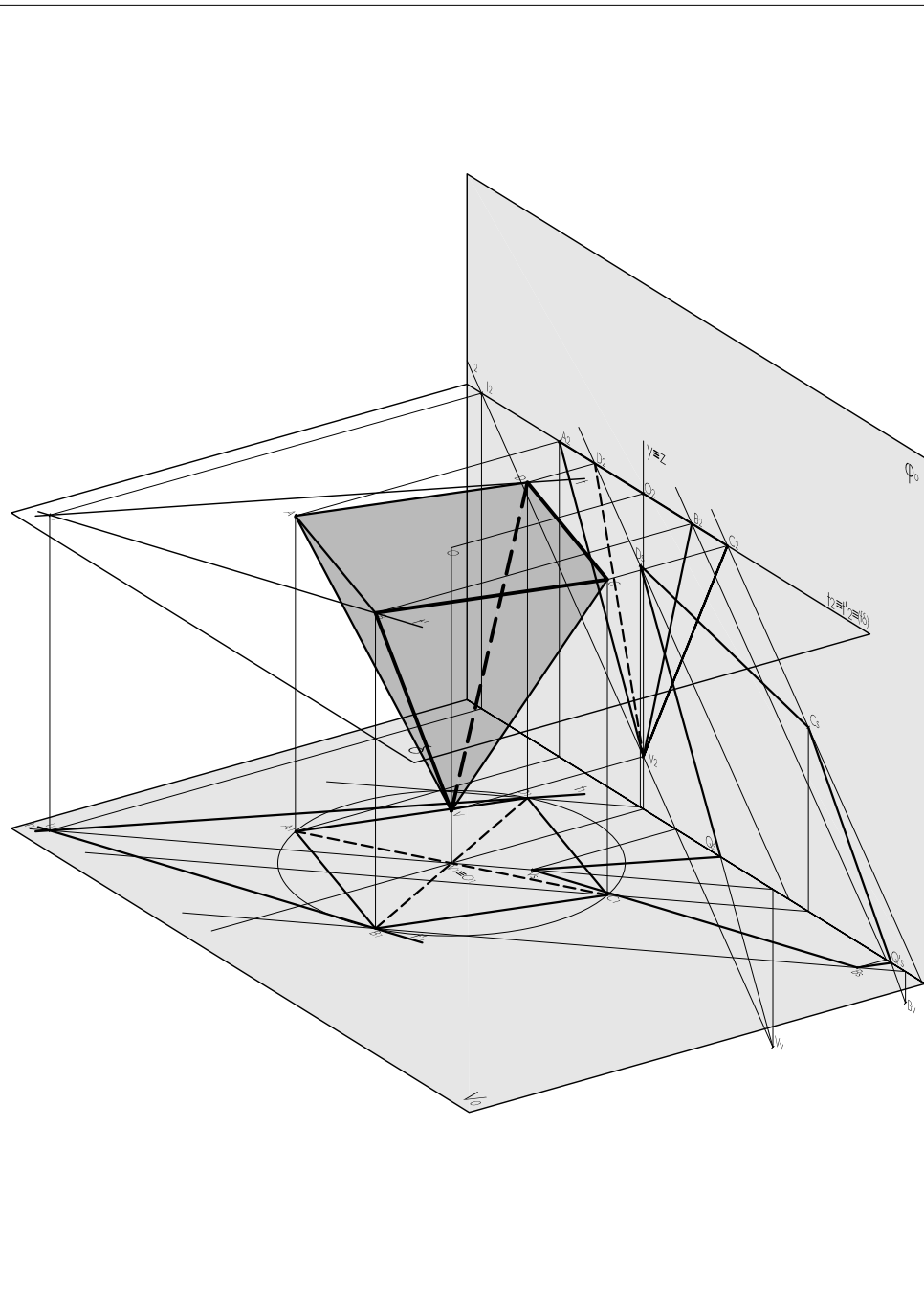




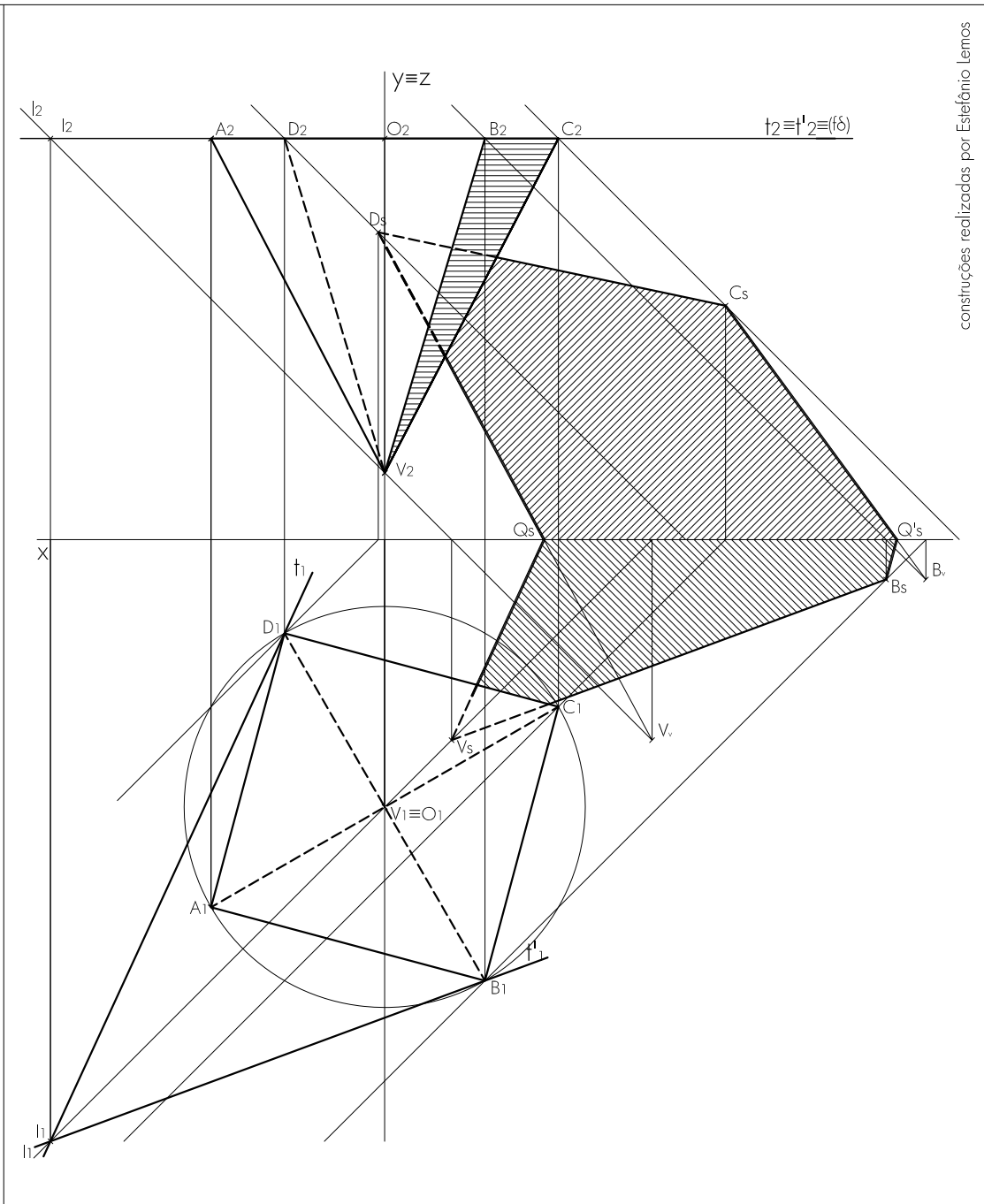
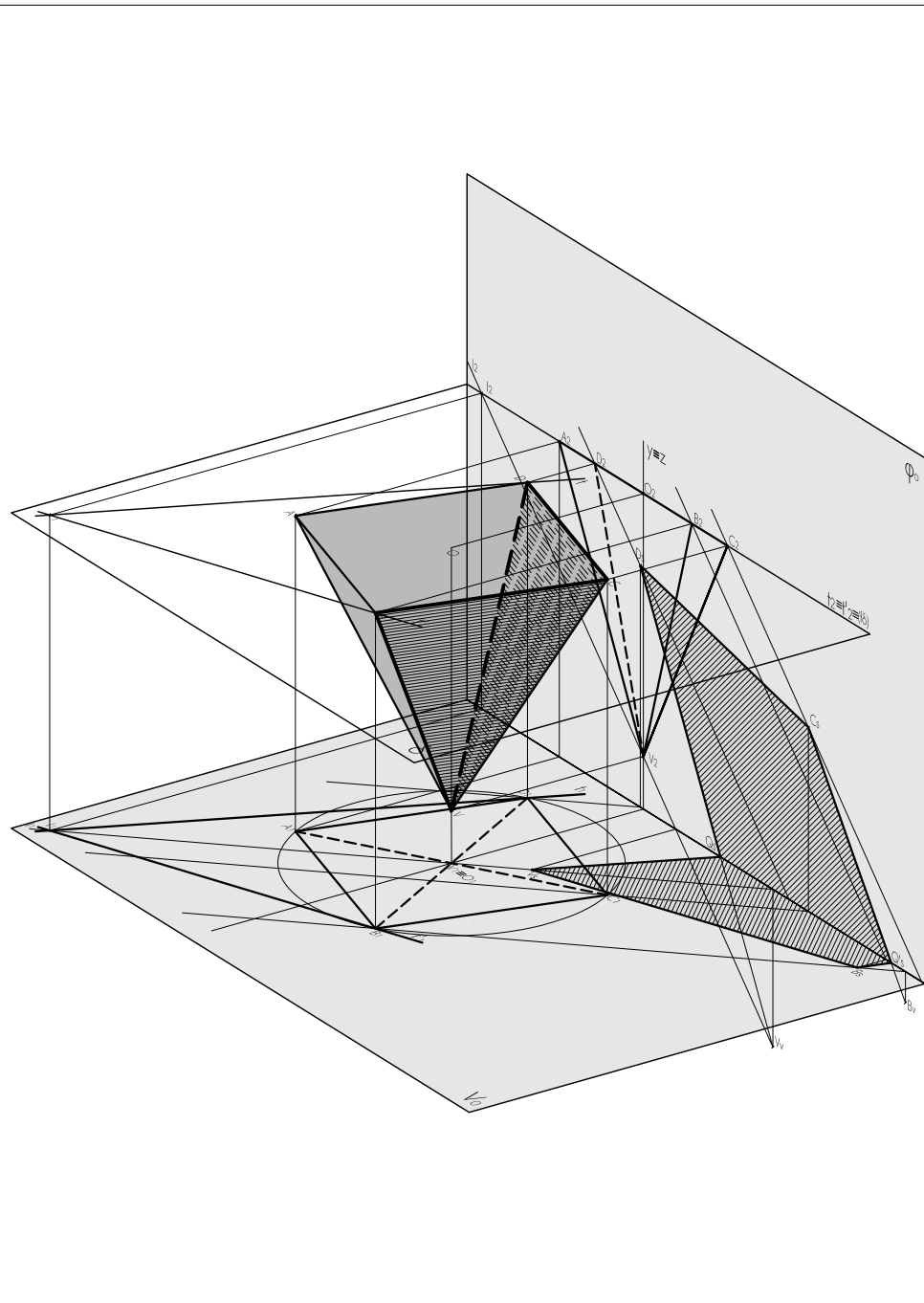
13) determinação das sombras virtuais de B e V para definição dos pontos de quebra da sombra;



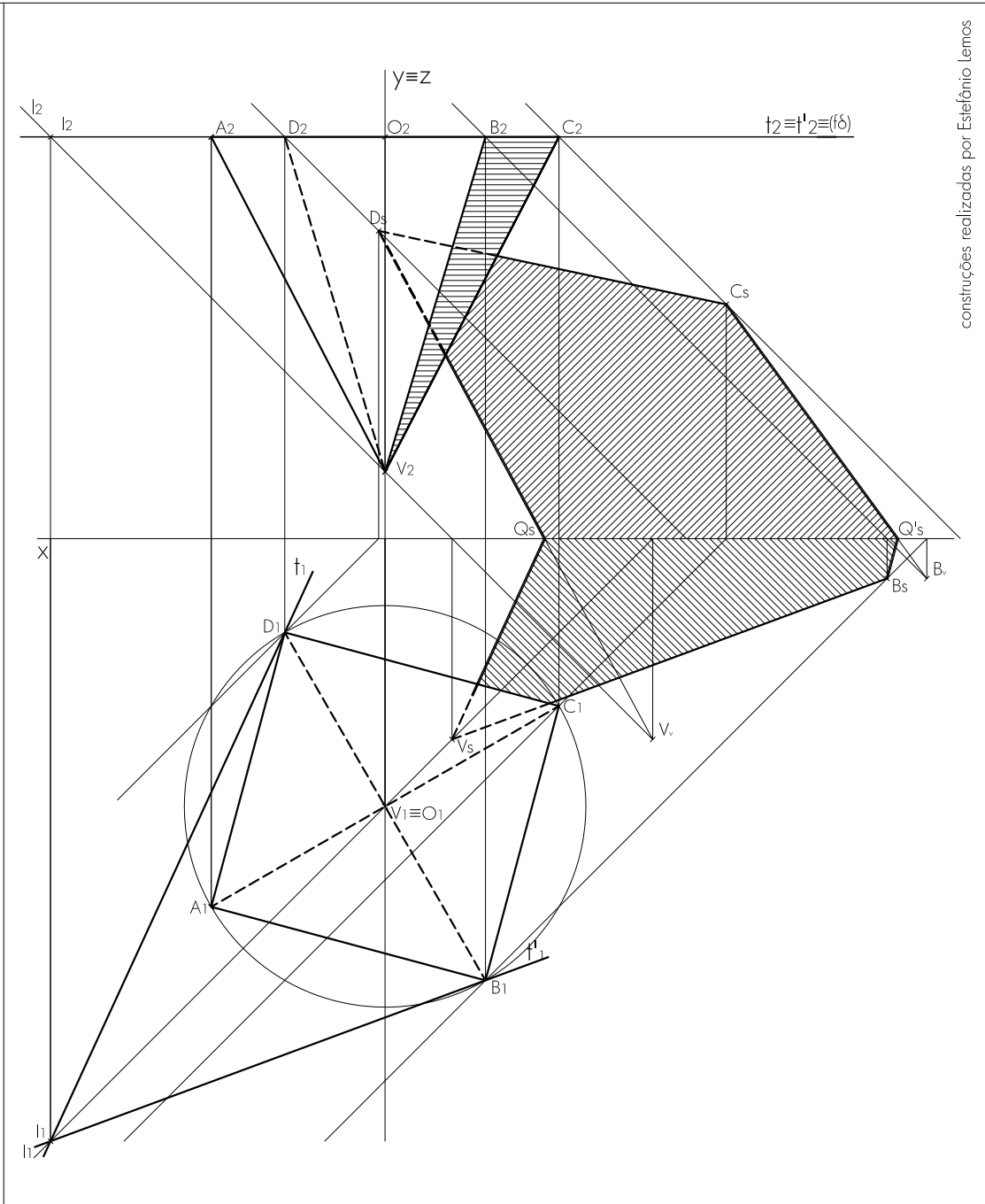
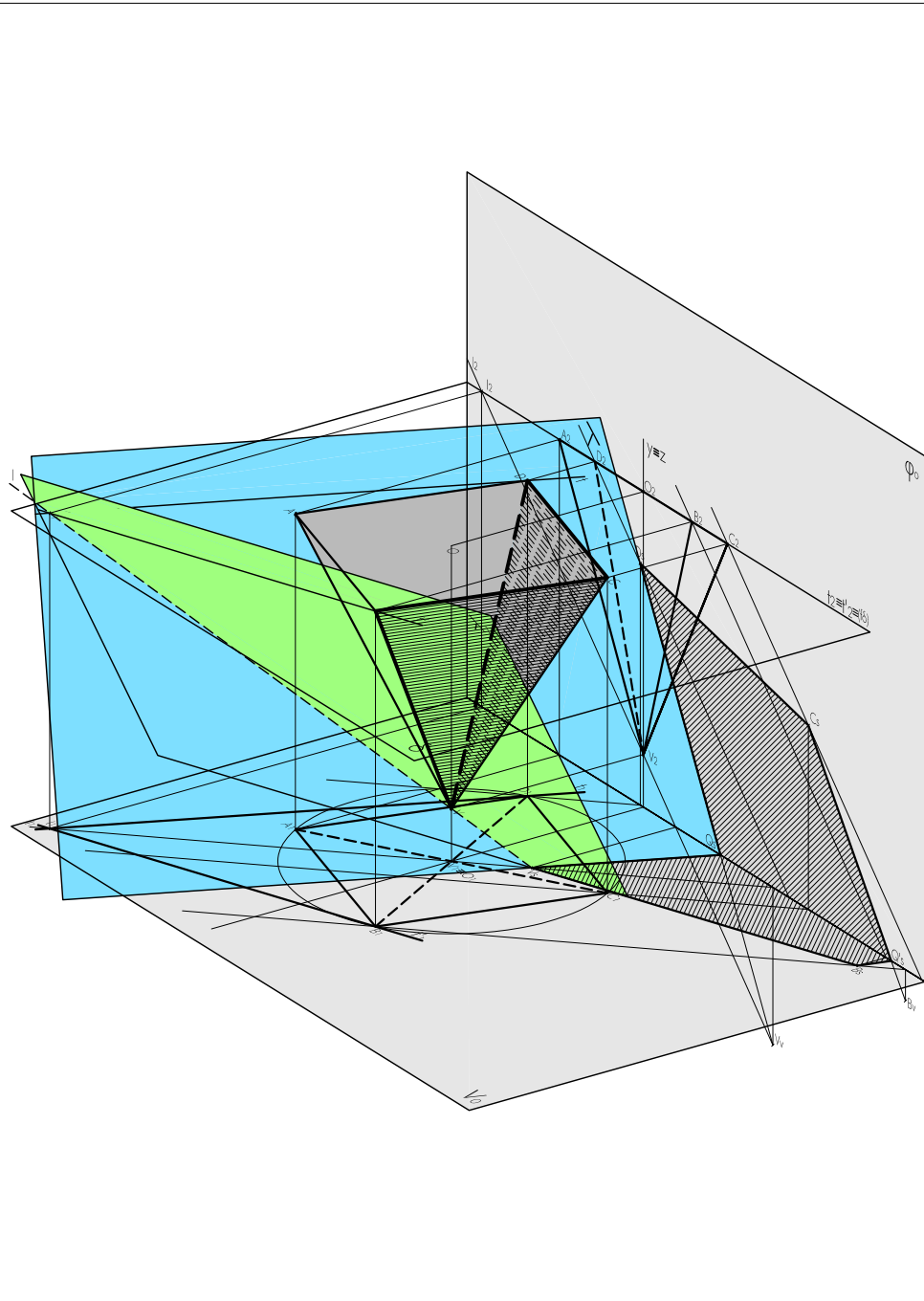
14) determinação do ponto de quebra da sombra da aresta BC; 15) traçado da sombra projectada da aresta BC;



16) determinação do ponto de quebra da sombra da aresta DV; 17) traçado da sombra projectada da aresta DV;



18) marcação do tracejado da sombra projectada; 19) marcação do tracejado da sombra própria da face BCV.



20) inclusão dos planos tangentes luz|Sombra,  $\lambda$  e  $\lambda_1$ .