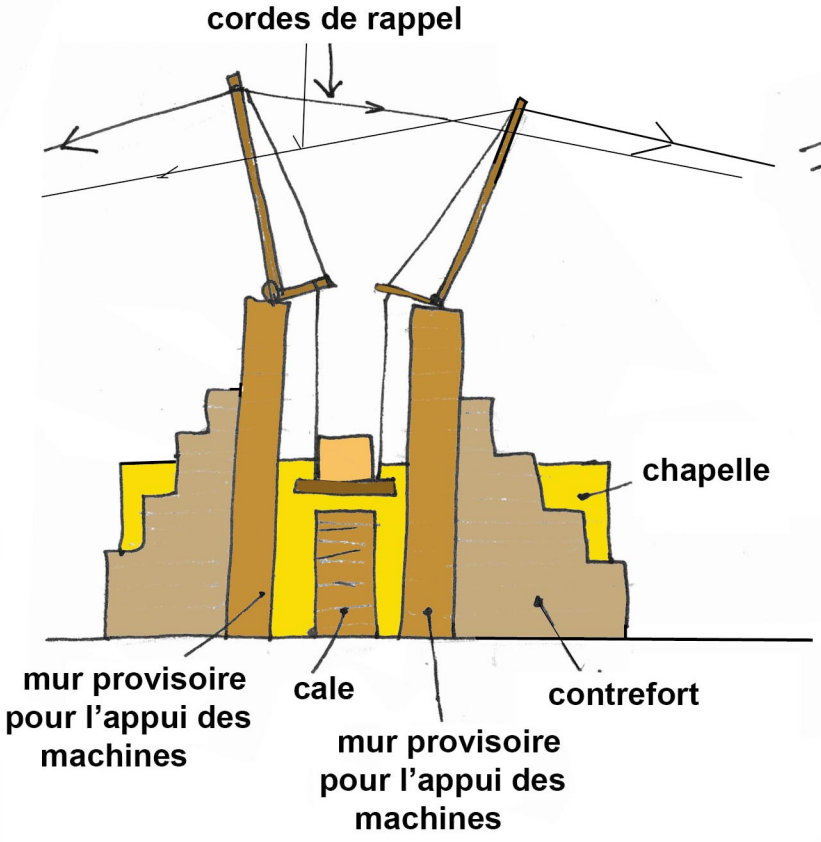
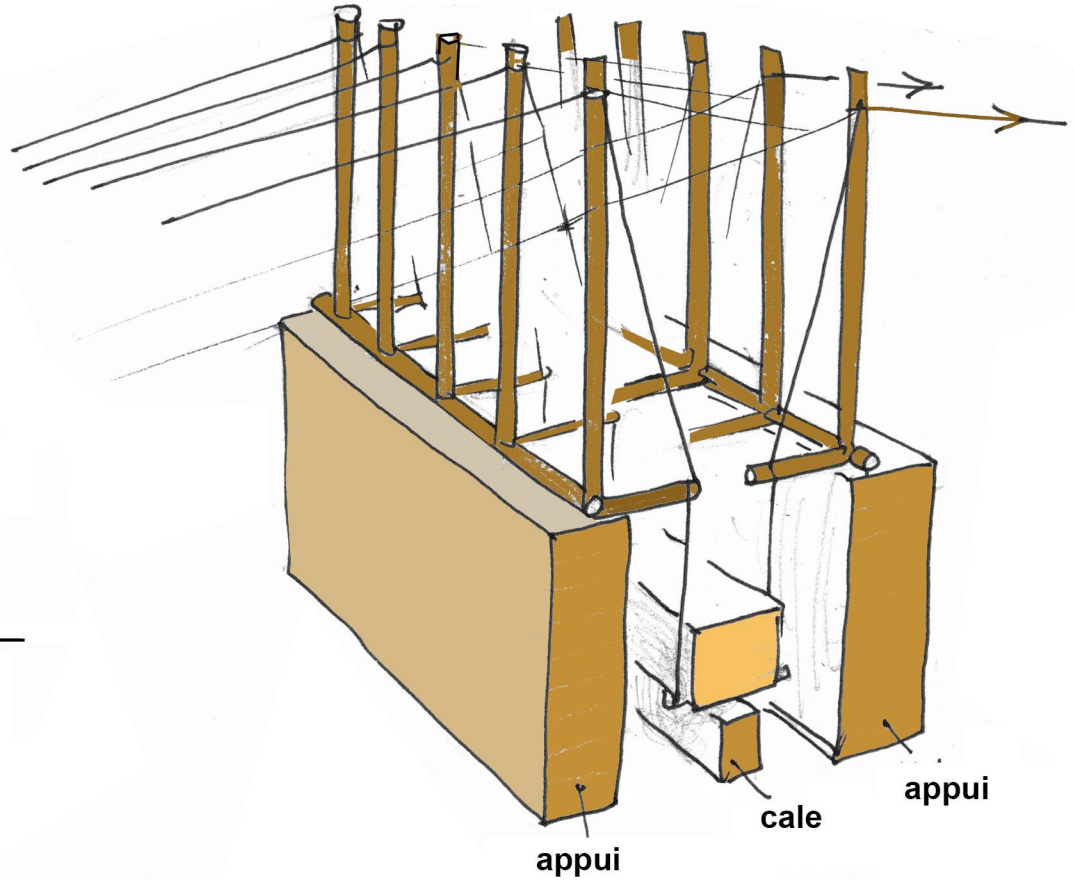
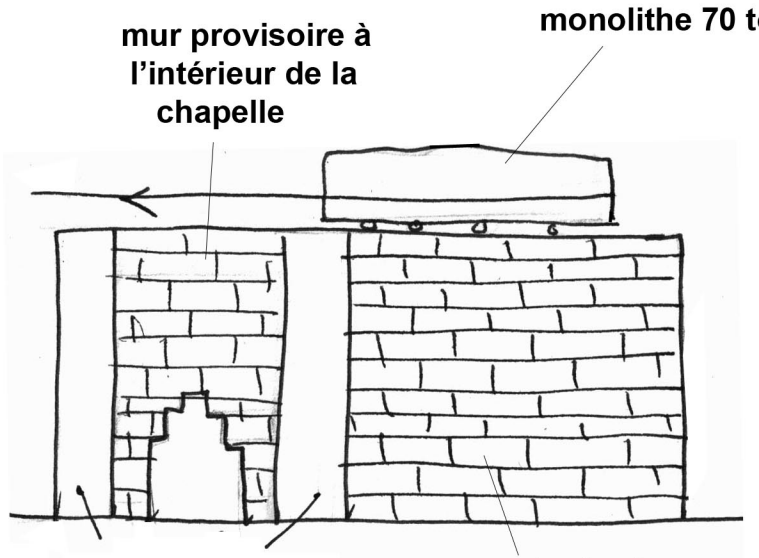
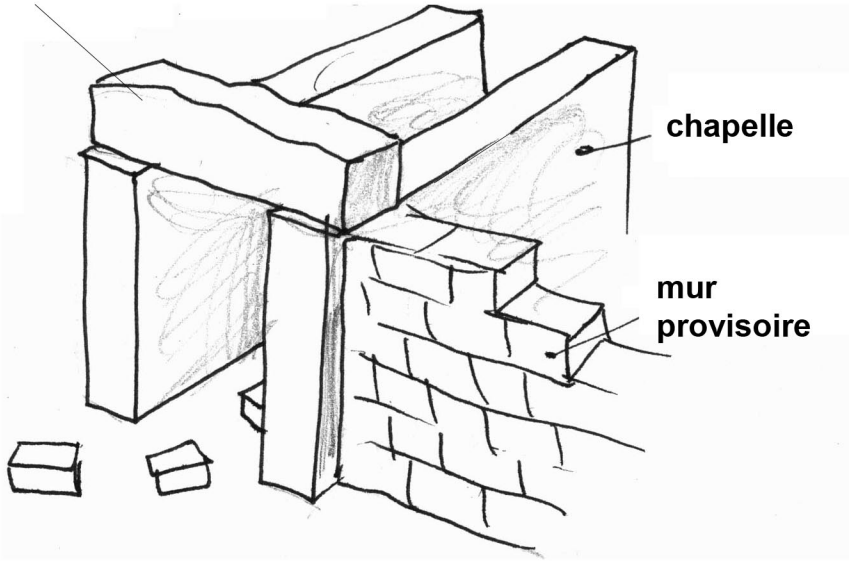
Tout commence par la sugestion d'utiliser ce système de levage pour amener un linteau de 75 tonnes à cinq mètres de hauteur, pour le faire se déplacer ensuite latéralement sur des rouleaux, afin de se faire s'appuyer sur les deux murs d'une «chapelle». A l'époque moderne, Antoine opte pour l'utilisation équivalente des vérins hydrauliques.





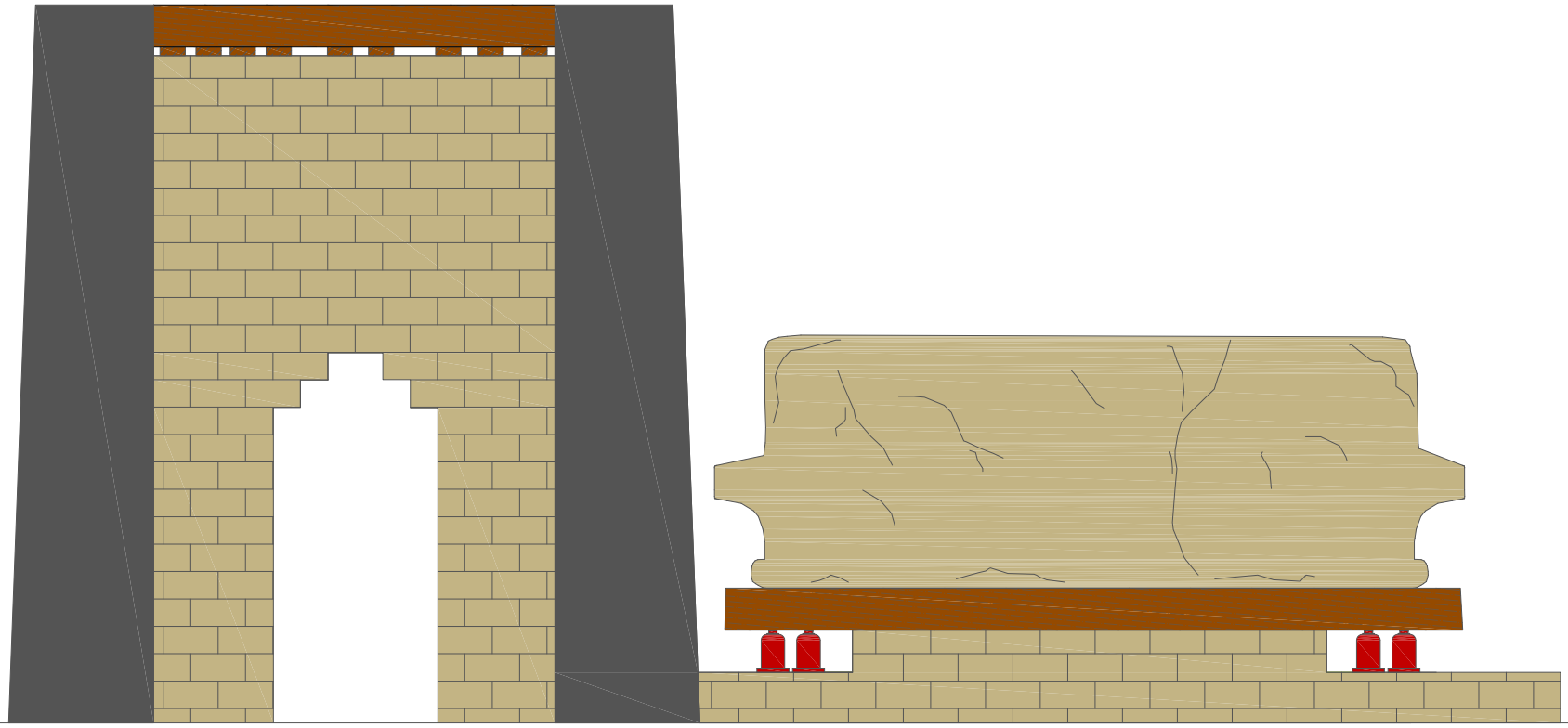

mur provisoire à l'intérieur de la chapelle
monolithe 70 tonnes
mur provisoire à l'extérieur de la chapelle


chapelle
mur provisoire

Anastylose de la Chapelle de Thoutmosis III

Musée de Plein Air

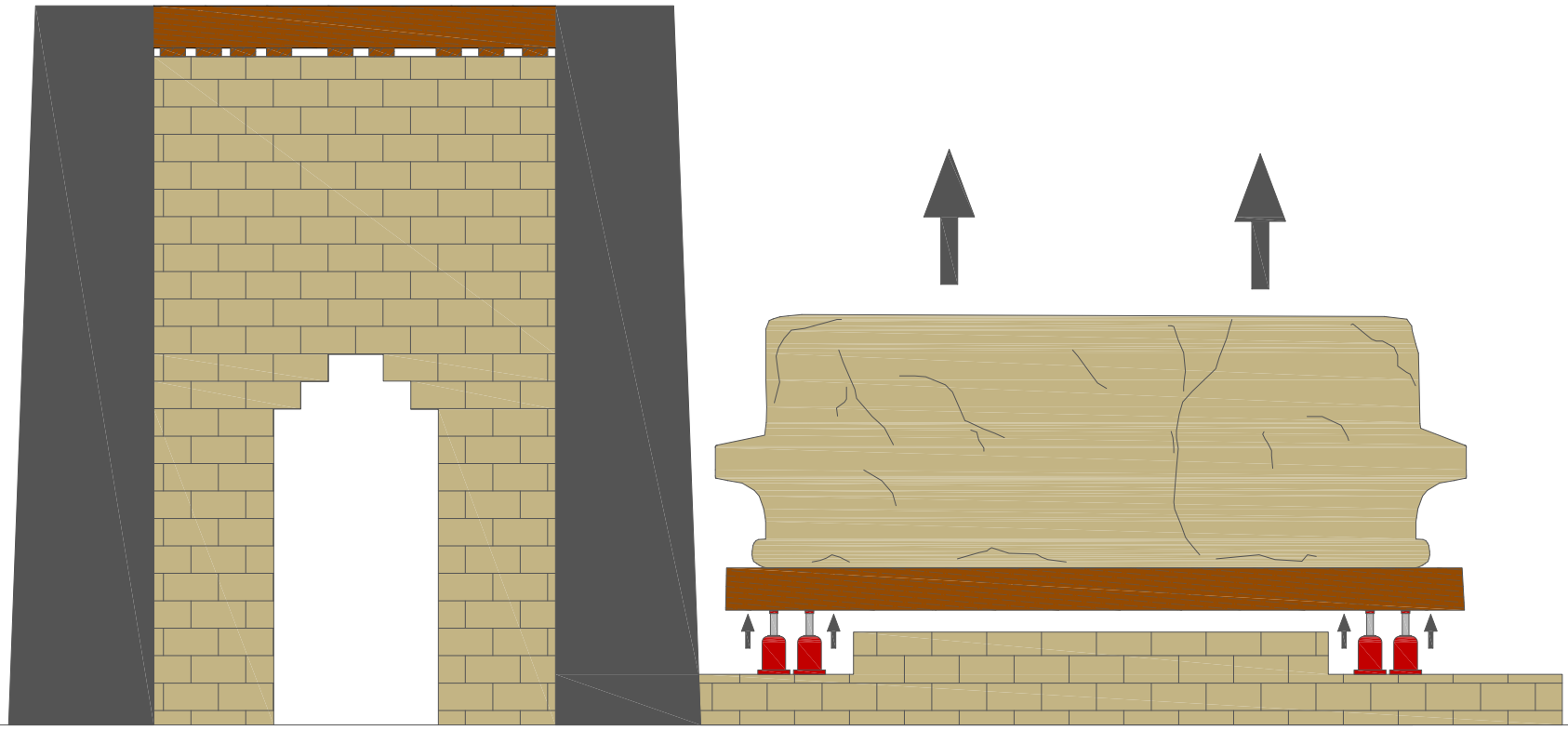
Protocole de levage de la dalle de couverture (75t)



0 10 50 100cm

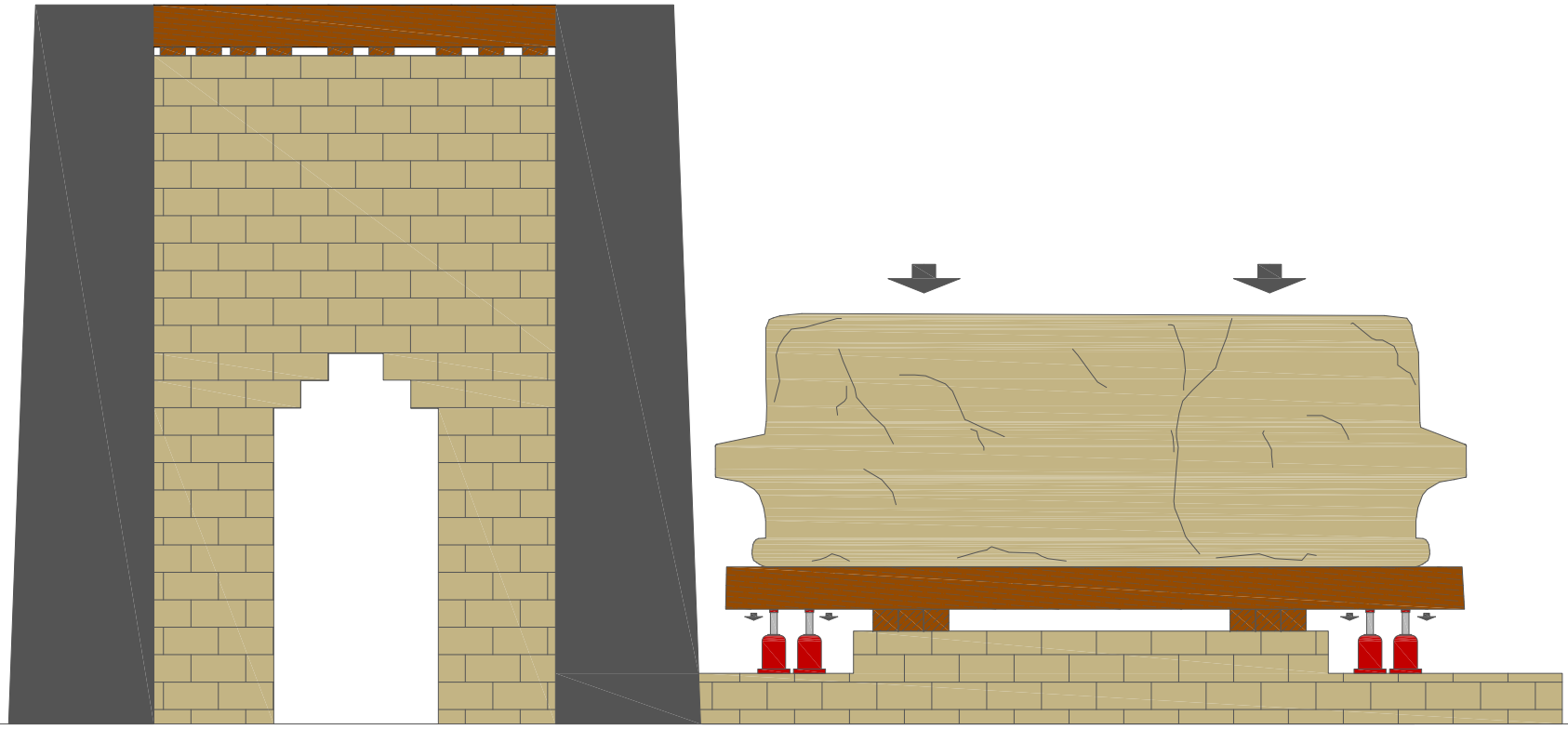
Phase 1

1.1. Installation des vérins.



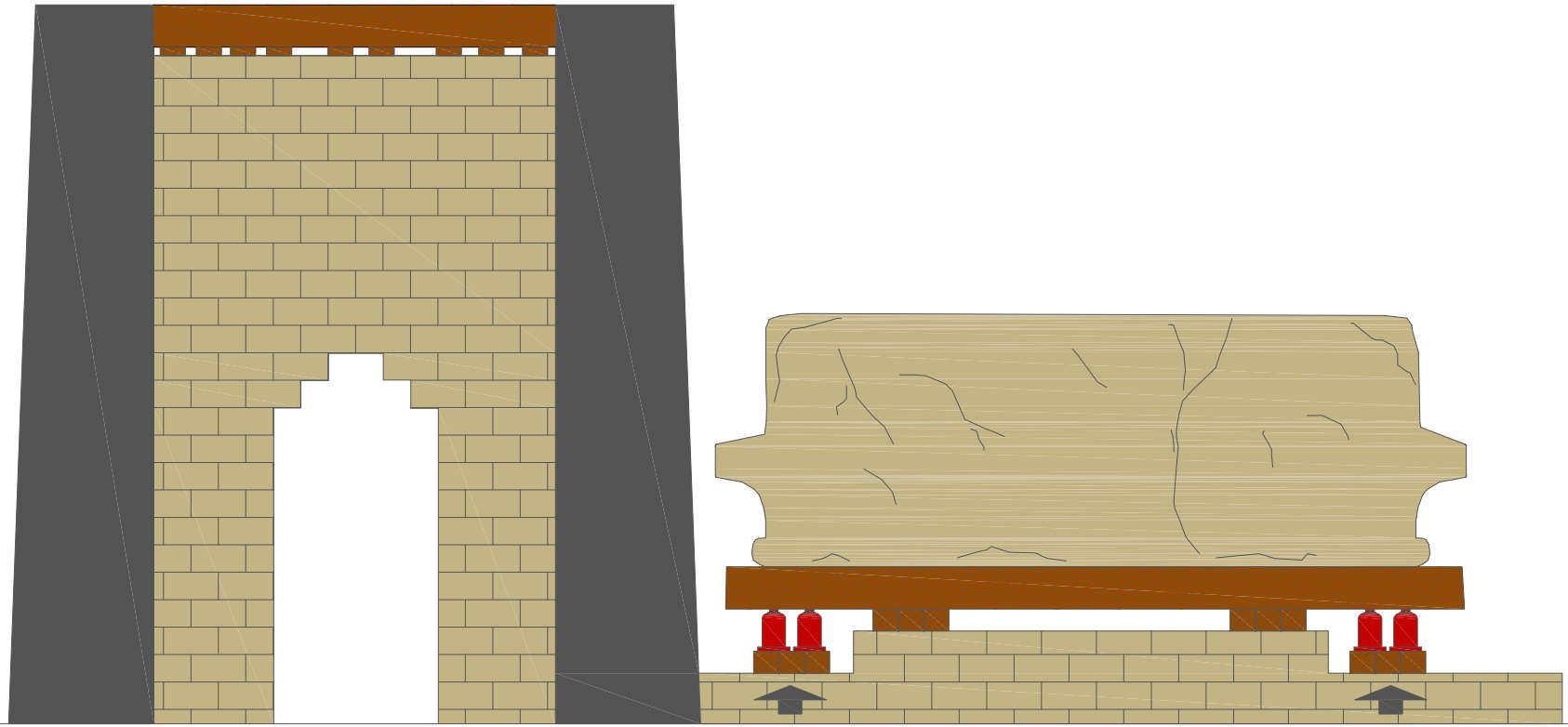
1.2. Levage

0 10 50 100cm



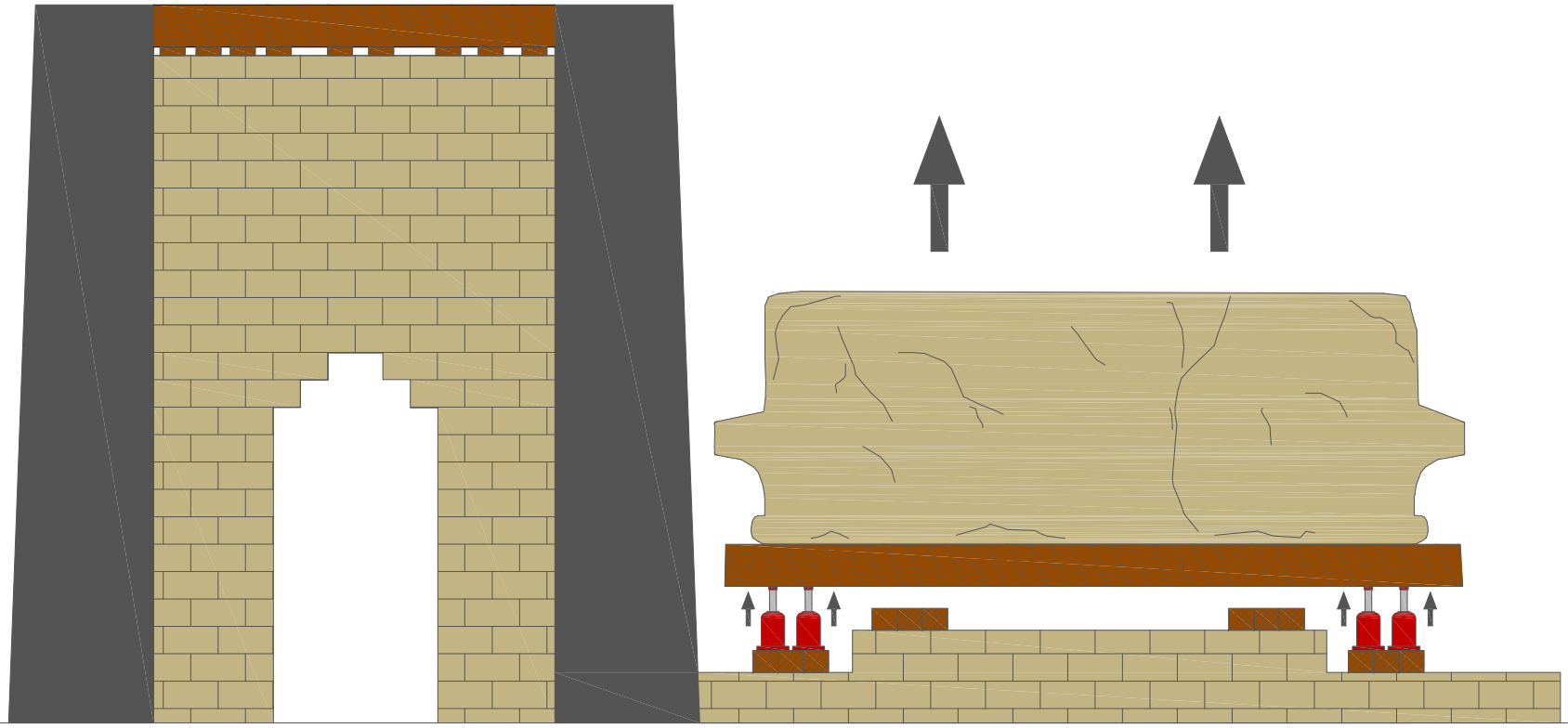
0 10 50 100cm

1.3. Pose sur premières cales centrales.



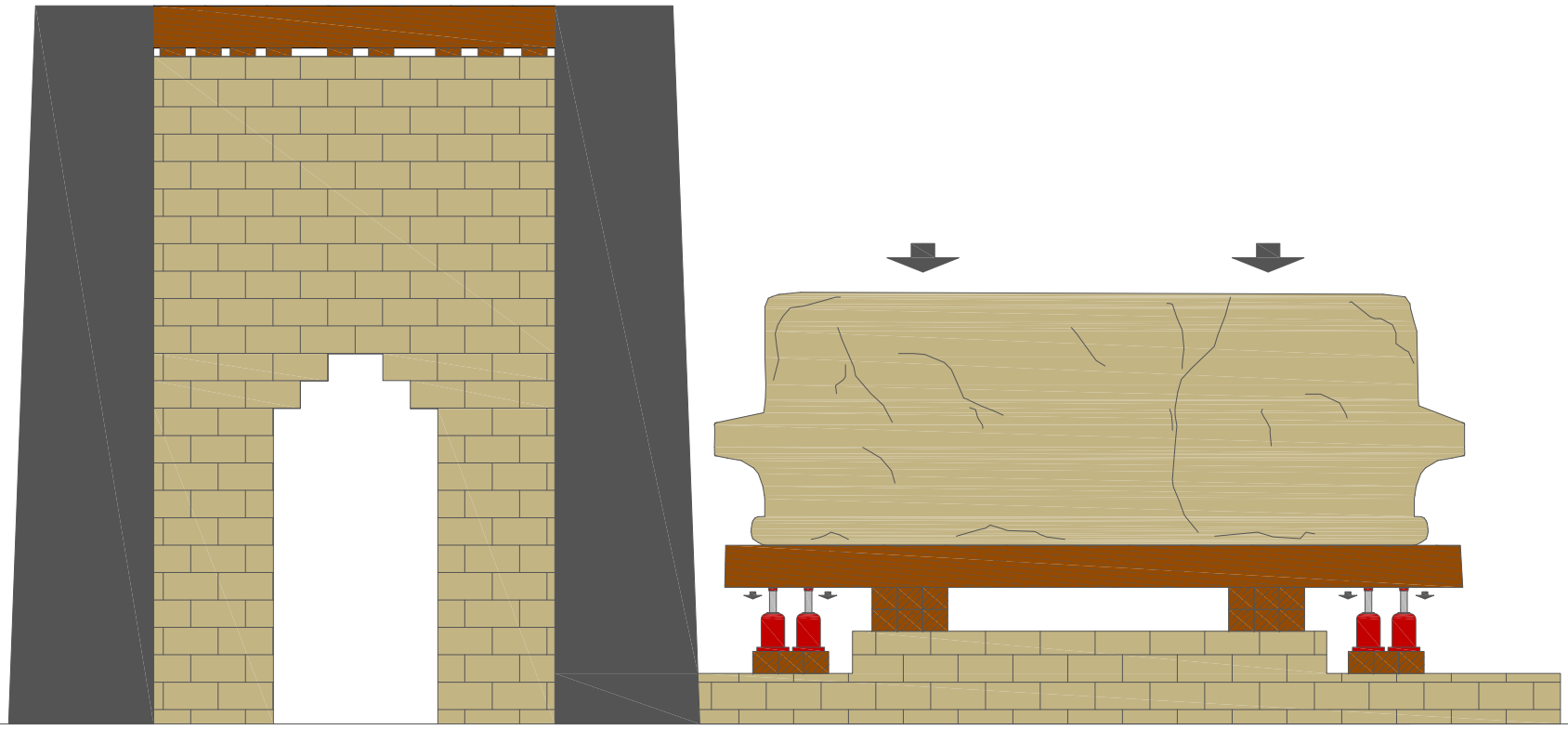
1.4. Rehaussement des vérins à l'aide de cales.

0 10 50 100cm



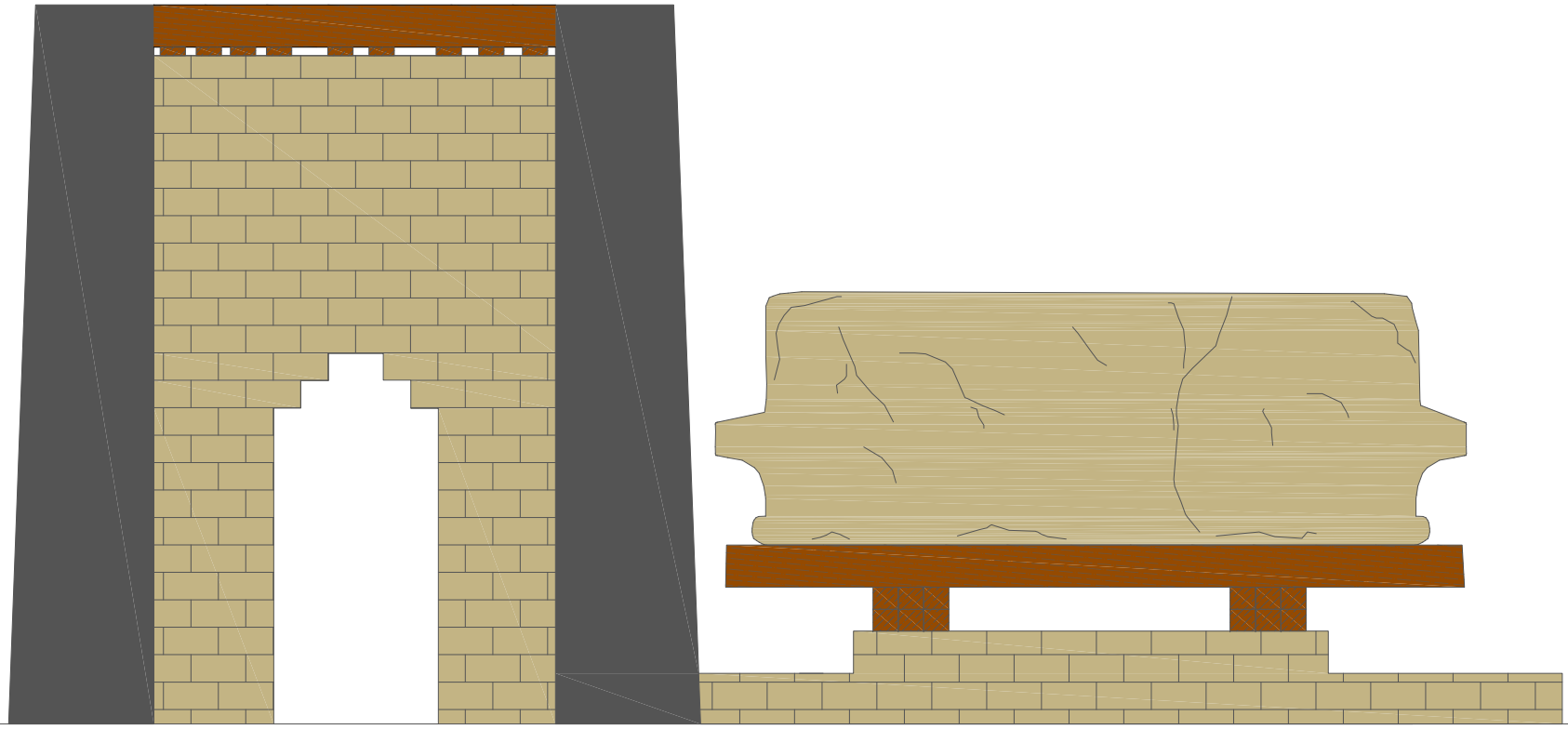
1.5. Levage

0 10 50 100cm



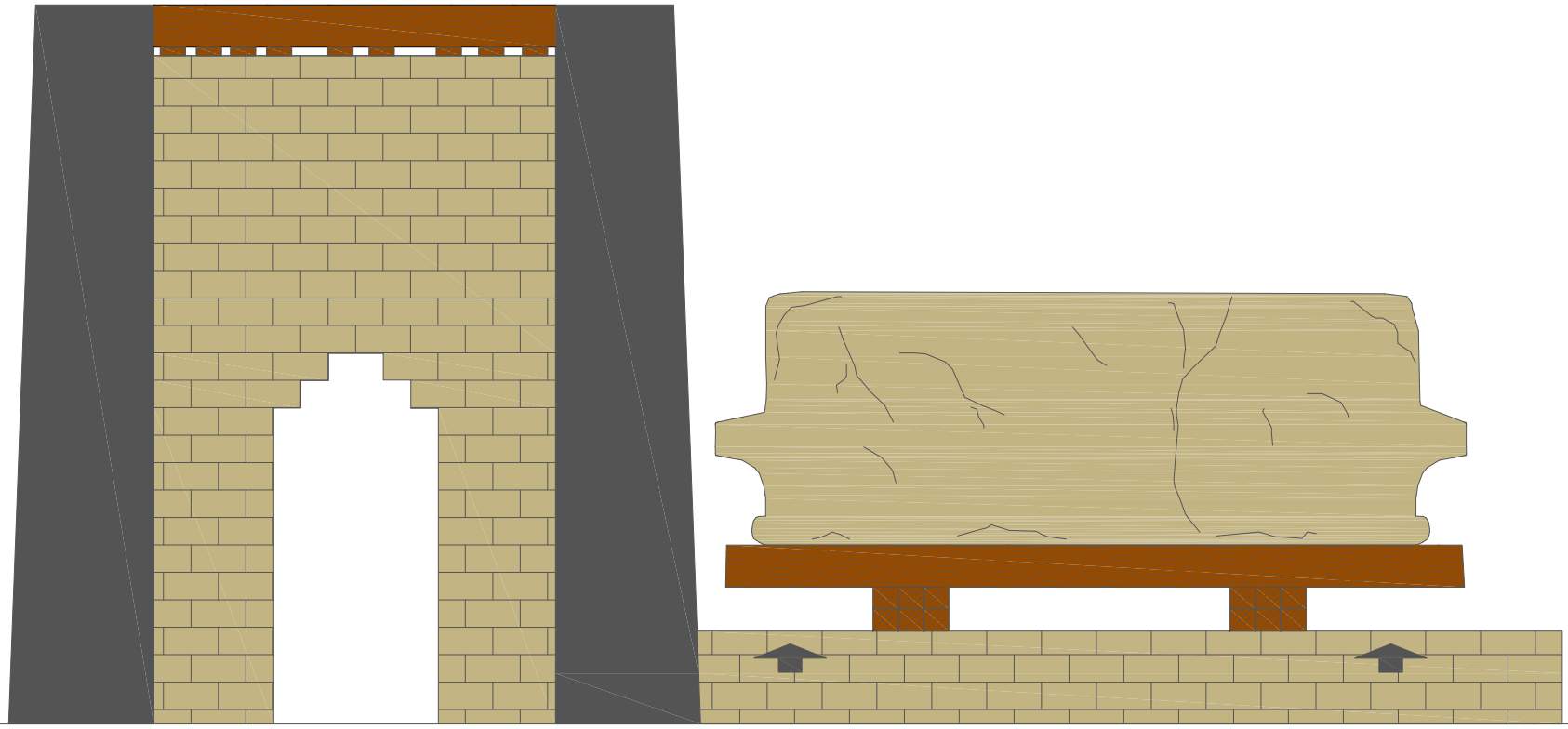
1.6.. Pose sur les deuxièmes cales centrales.

0 10 50 100cm



1.7. Retrait des vérins

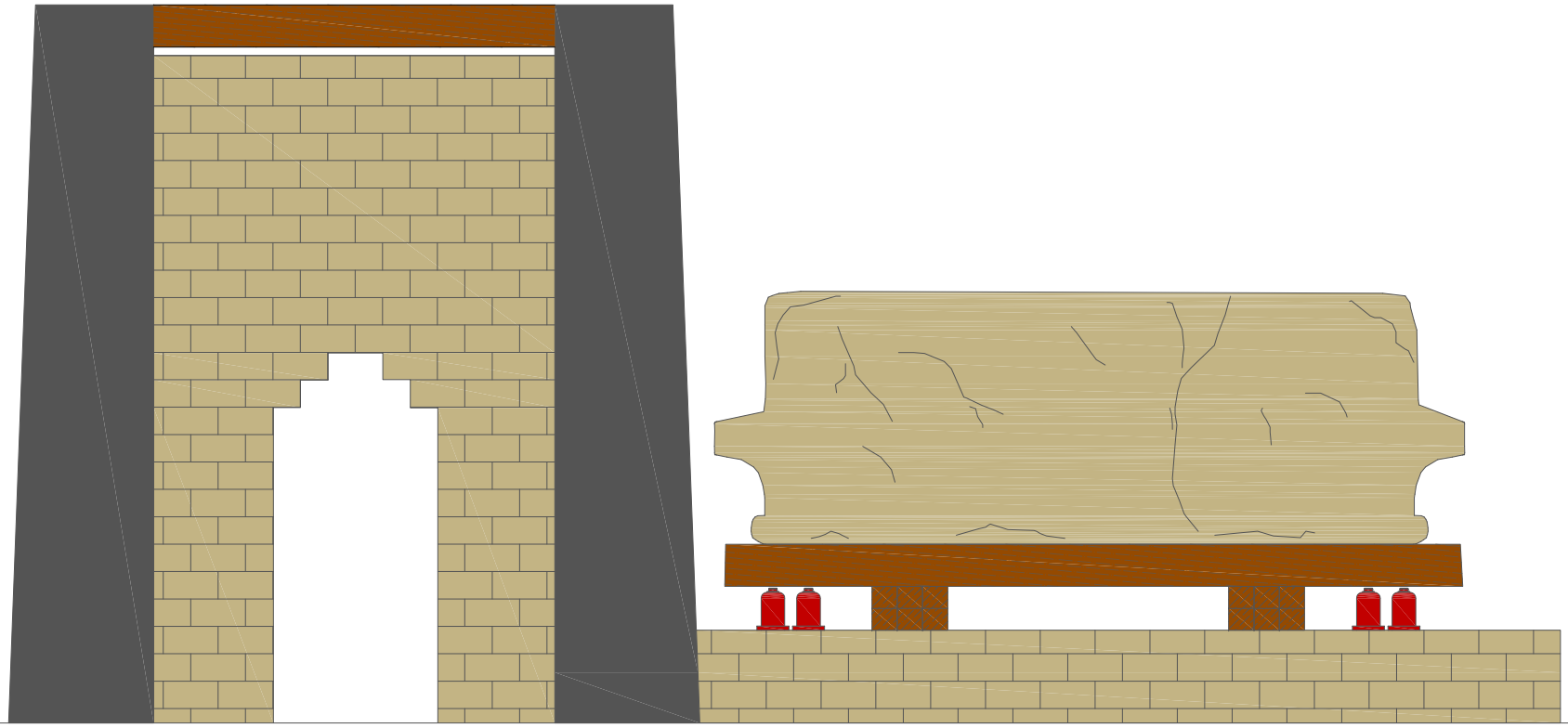
0 10 50 100cm



0 10 50 100cm

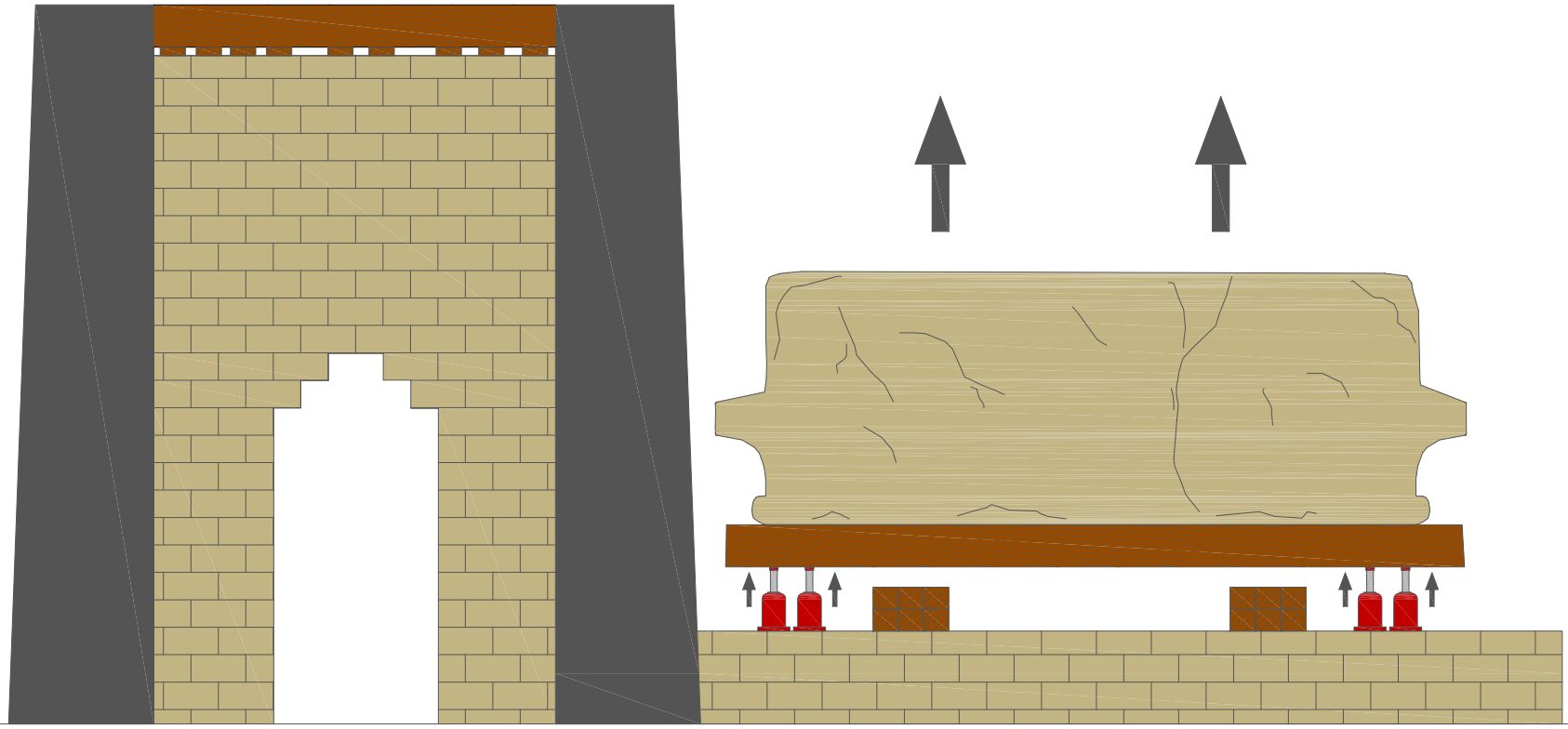
Phase 2

2.1. Rehaussement de la maçonnerie sur sa partie basse



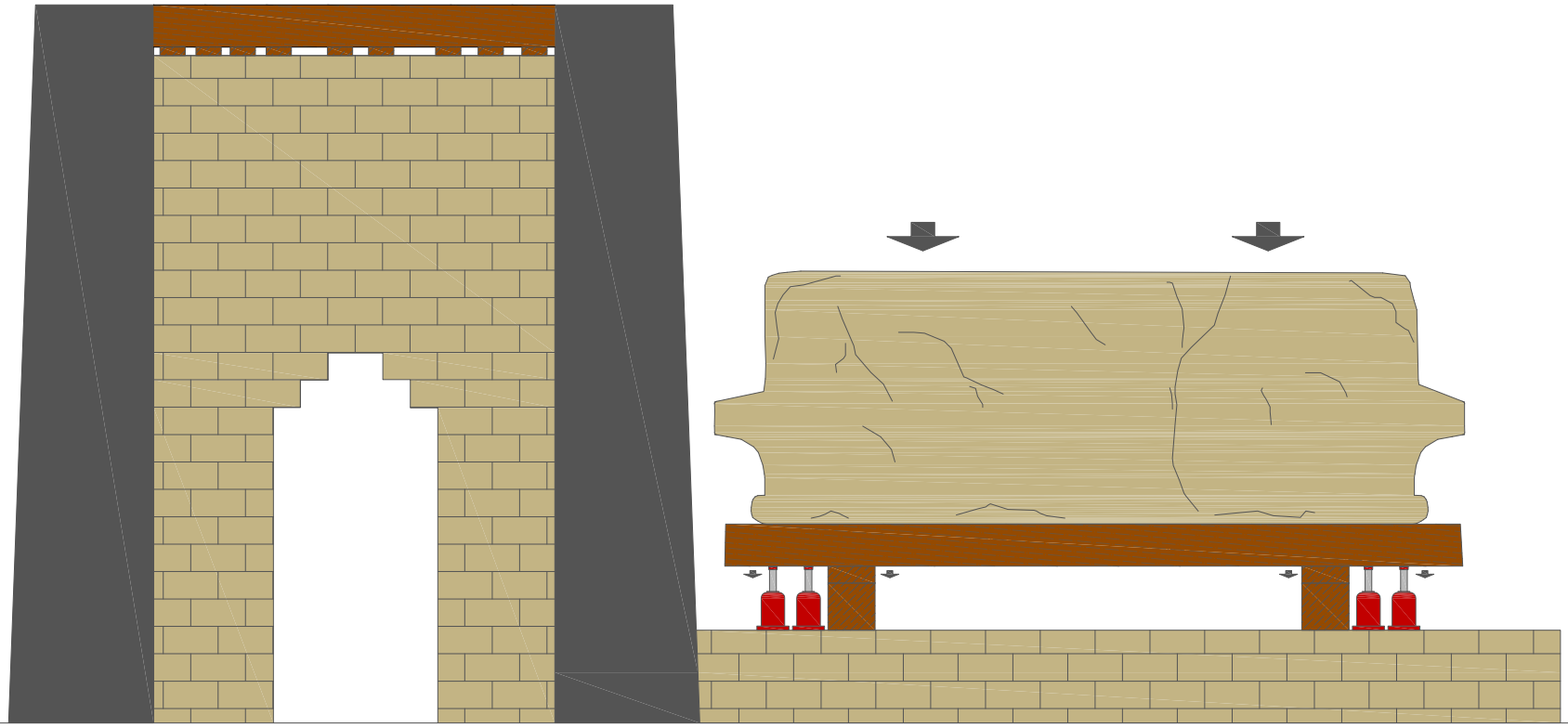
2.2. Installation des vérins.

0 10 50 100cm



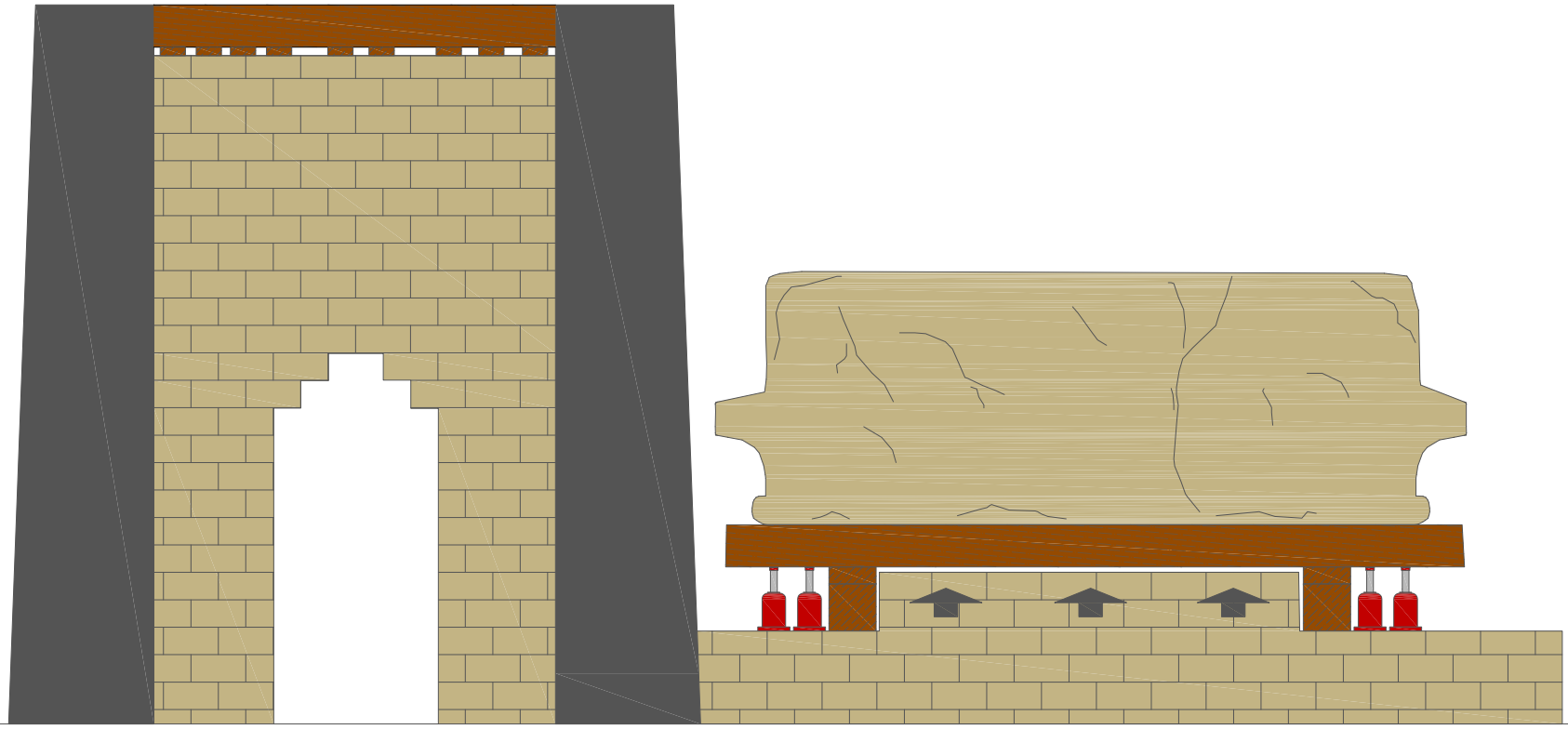
2.3. Levage

0 10 50 100cm



0 10 50 100cm

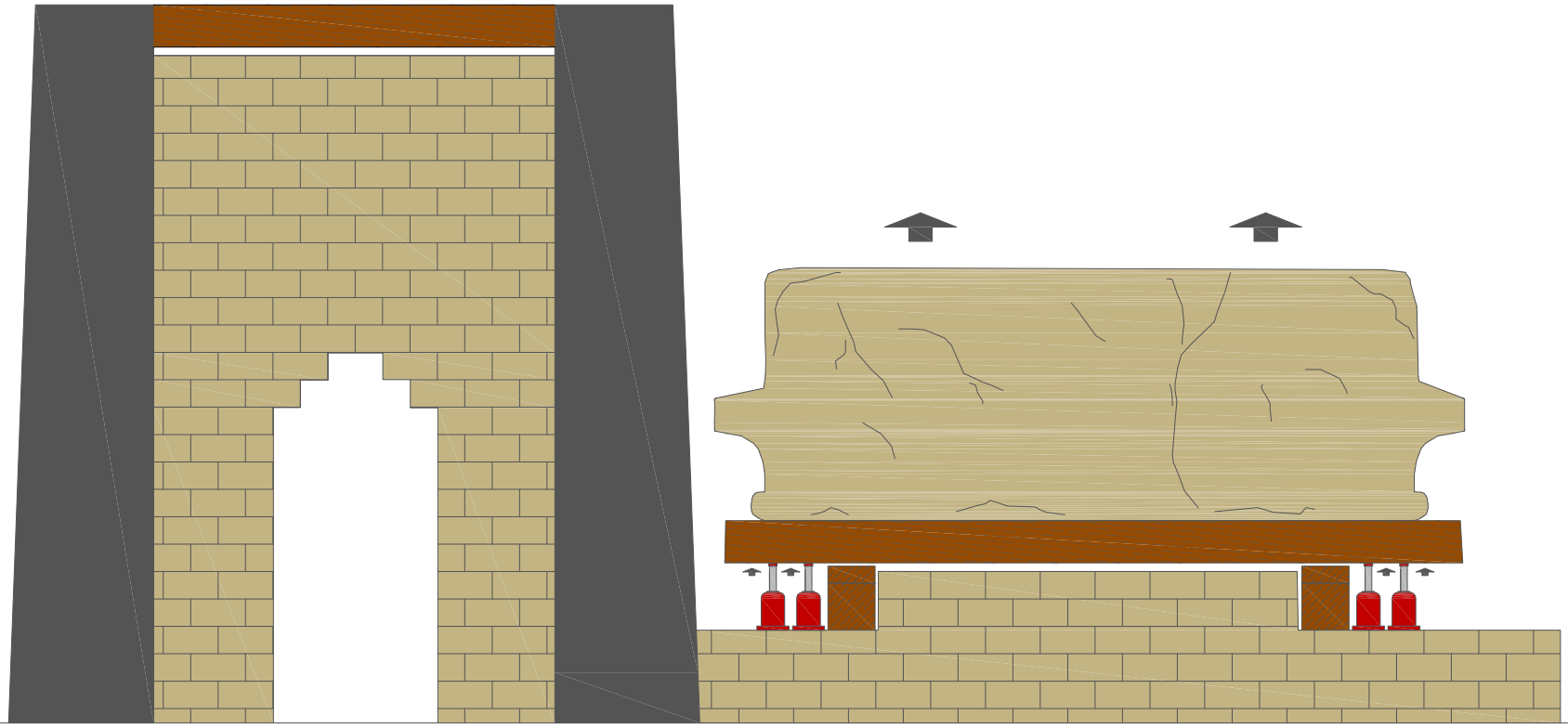
2.4. Retrait des cales centrales et pose sur cales étroites contre les vérins



0 10 50 100cm

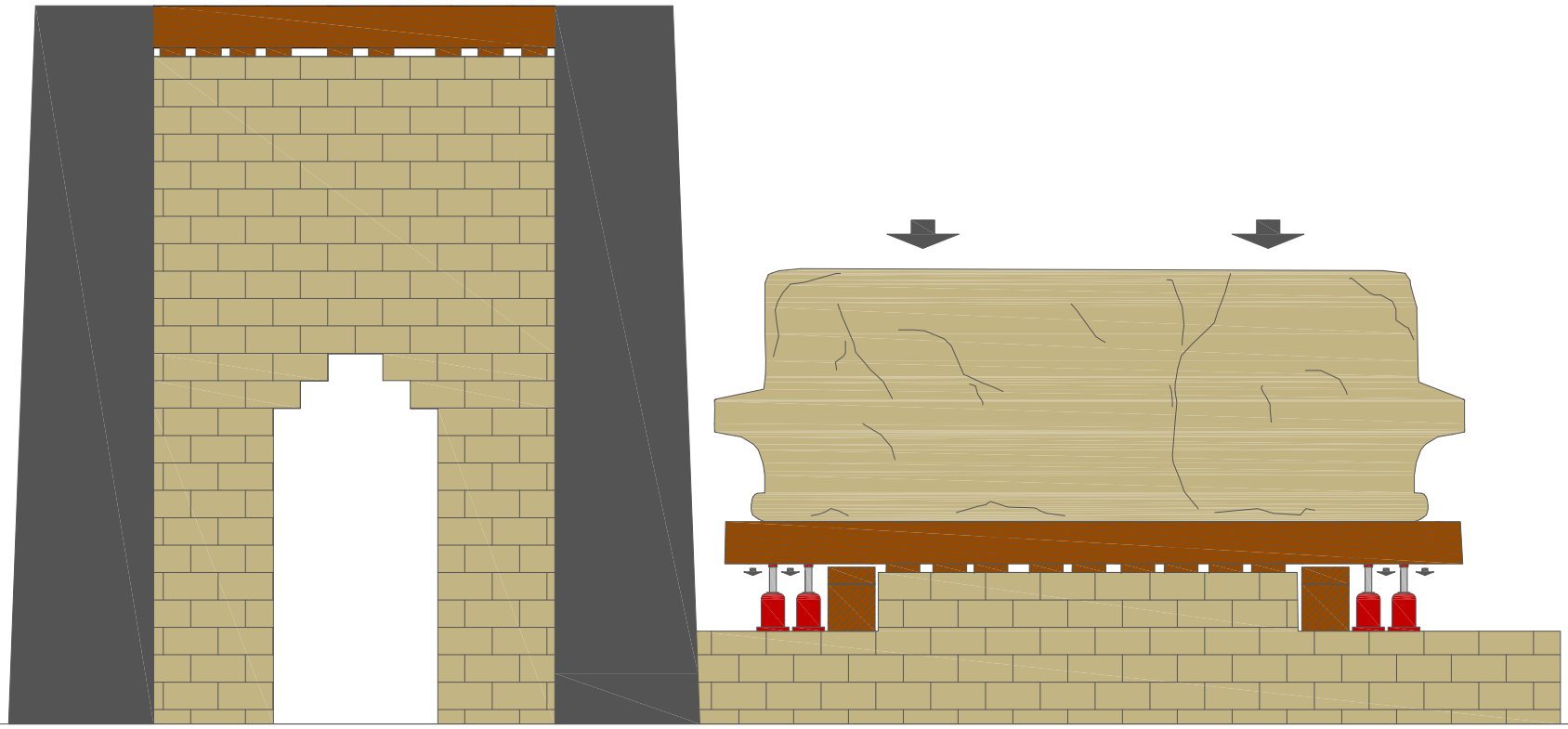
Phase 3

3.1. Rehaussement de la maçonnerie centrale



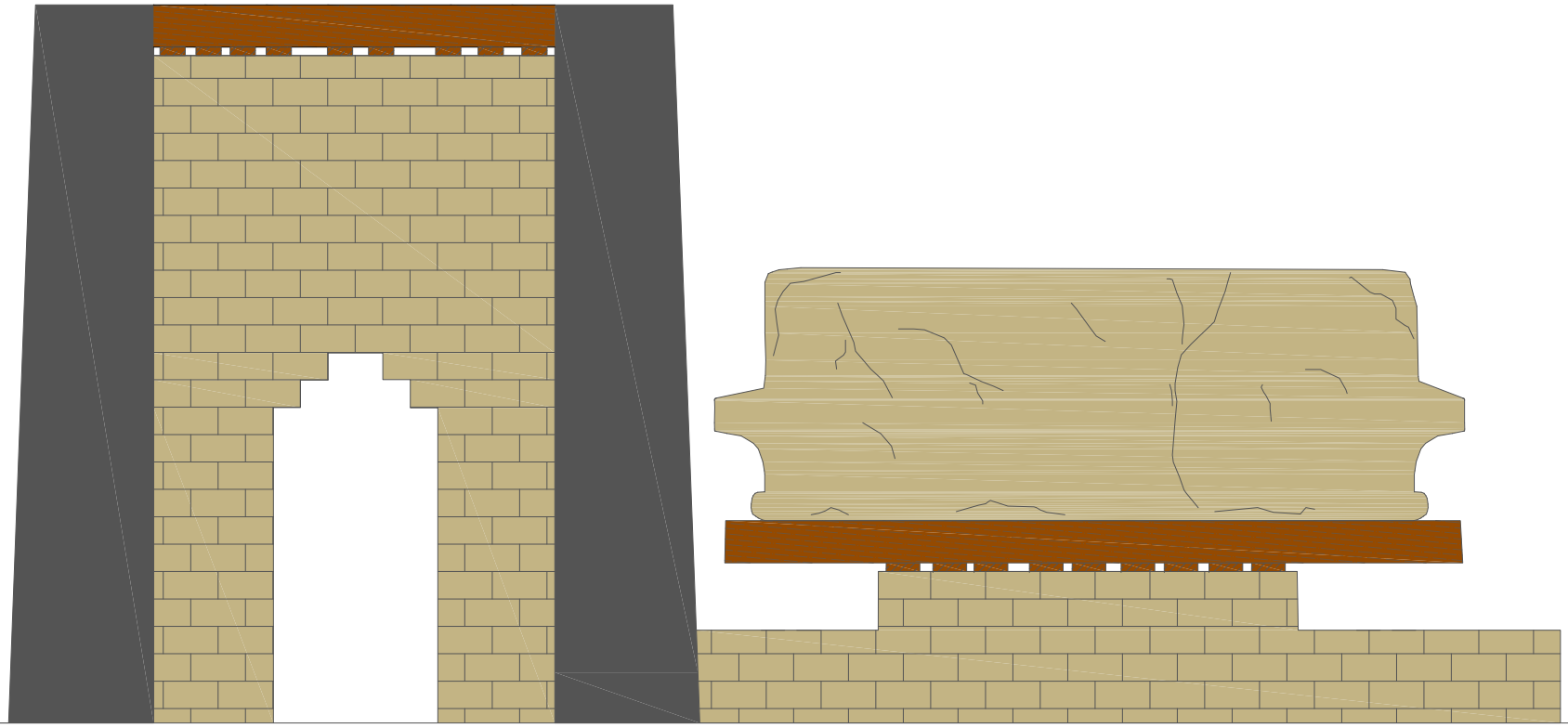
3.2. Levage de 2cm pour retrait des cales

0 10 50 100cm



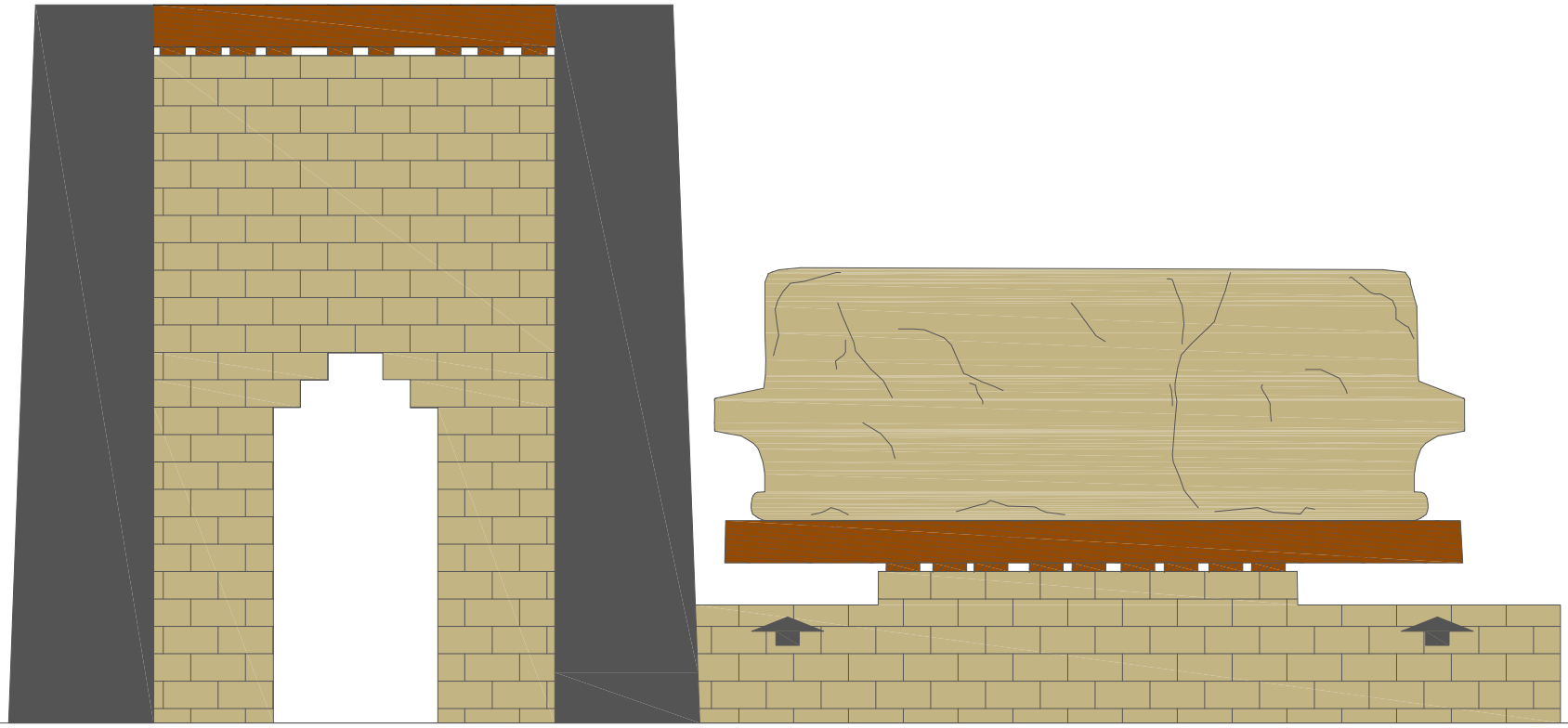
3.3. Pose sur cales centrales

0 10 50 100cm



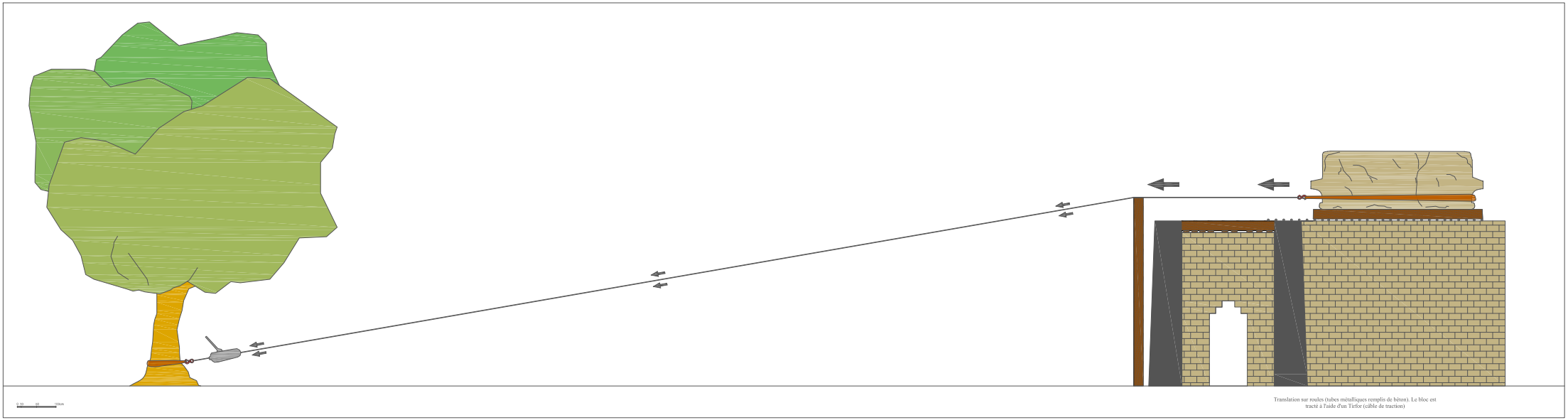
0 10 50 100cm

3.4. Retraits des cales et des vérins

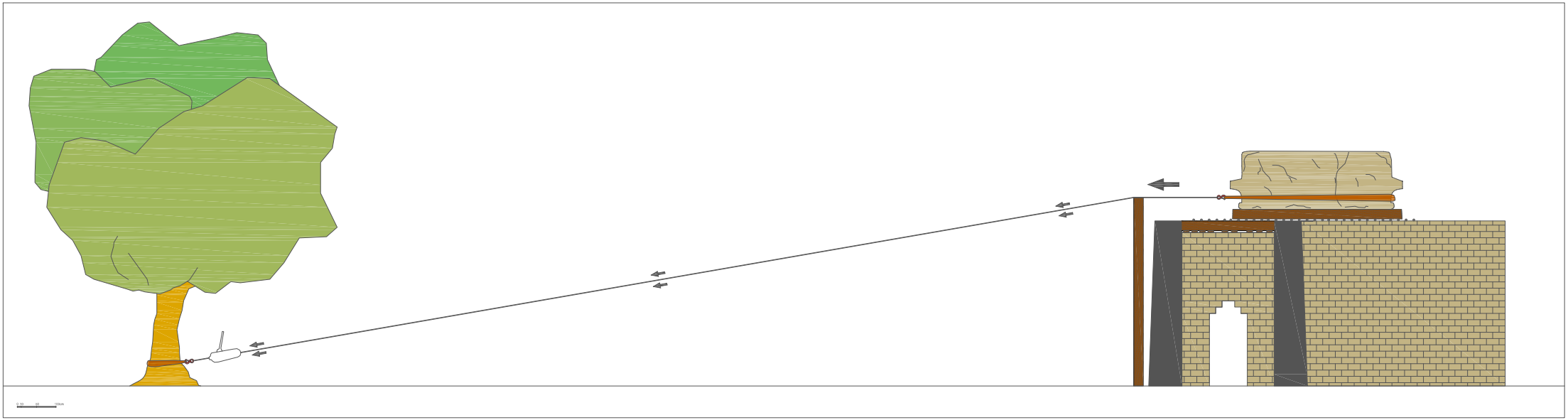


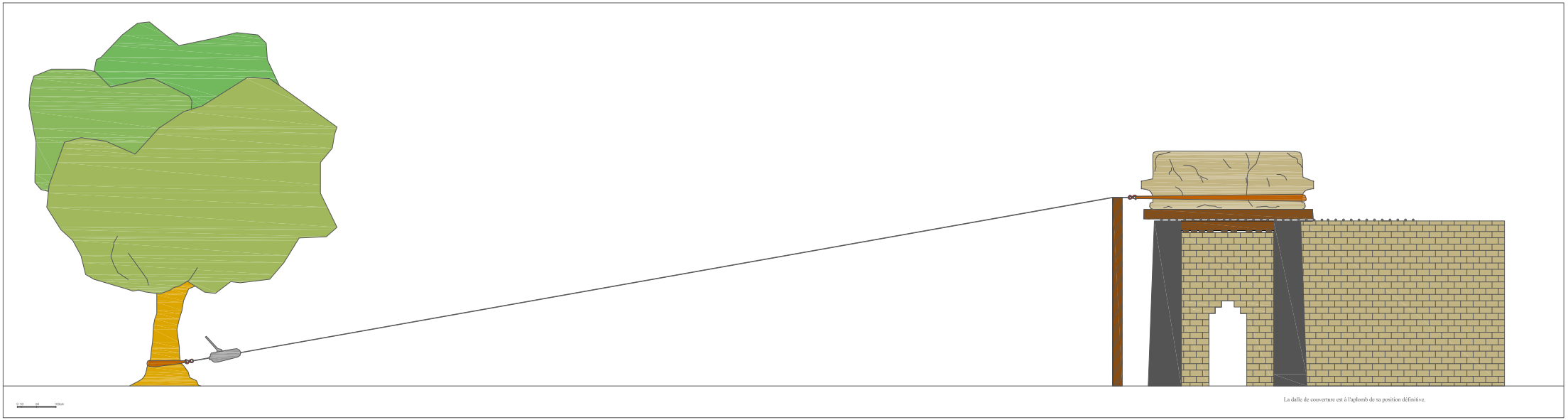
0 10 50 100cm

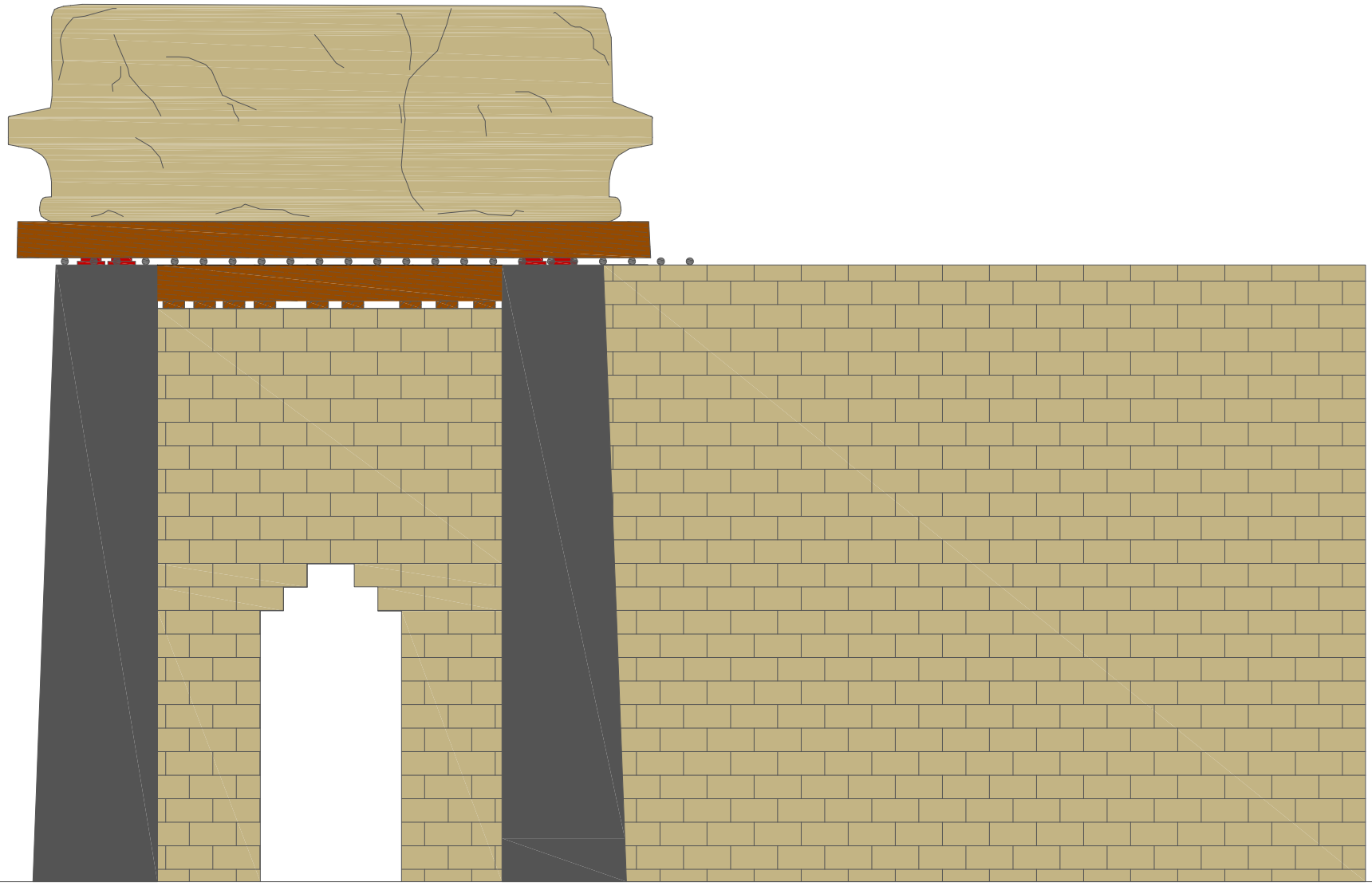
Phase 4
Rehaussement de la maçonnerie basse pour réinstallation des vérins.
= retour Phase 1 jusqu'au somment de la chapelle.



Translation sur roules (tubes métalliques remplis de béton). Le bloc est tracté à l'aide d'un Tirfor (câble de traction)

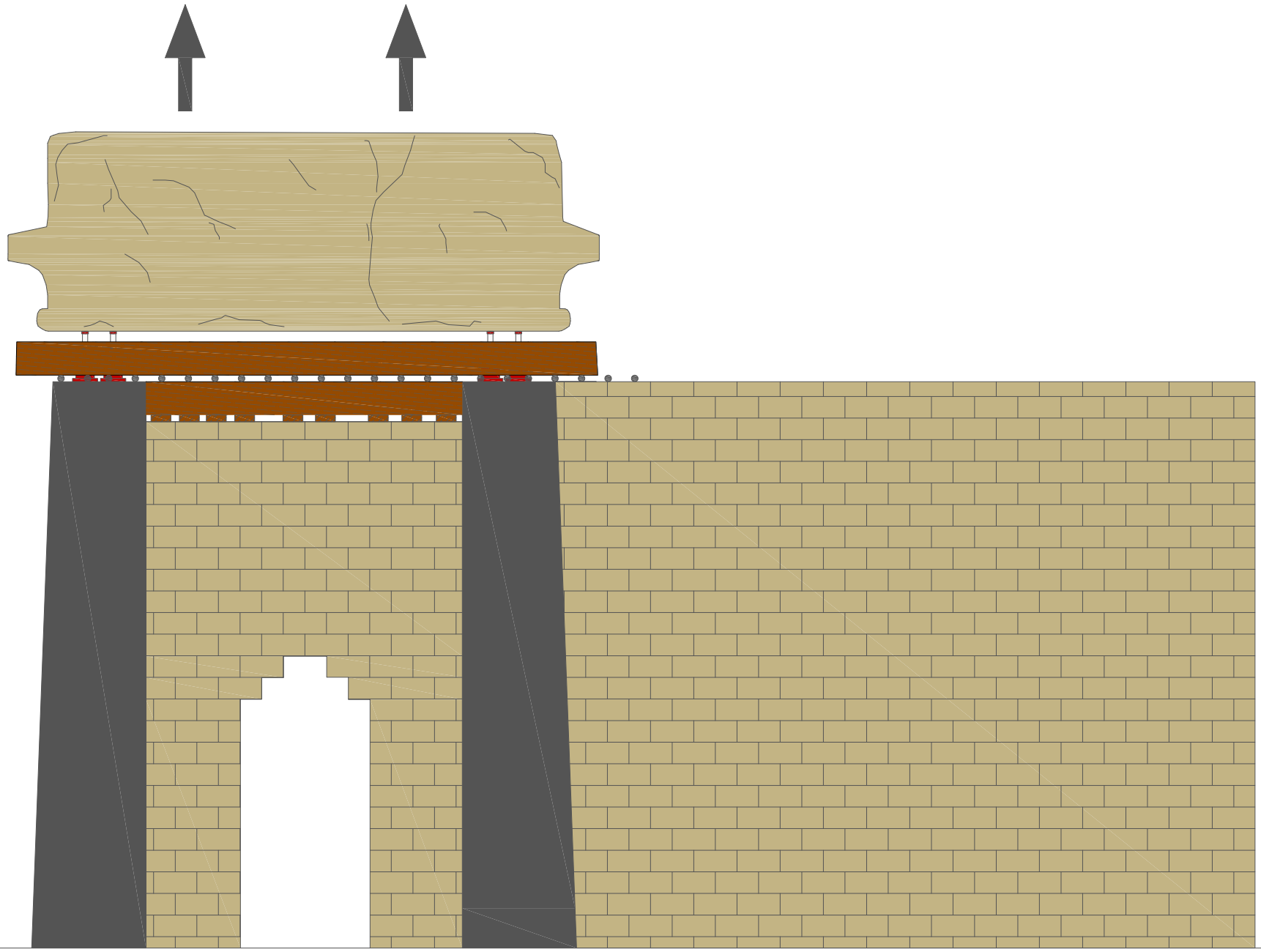



0 10 20 30cm
La dalle de couverture est à l'aplomb de sa position définitive.



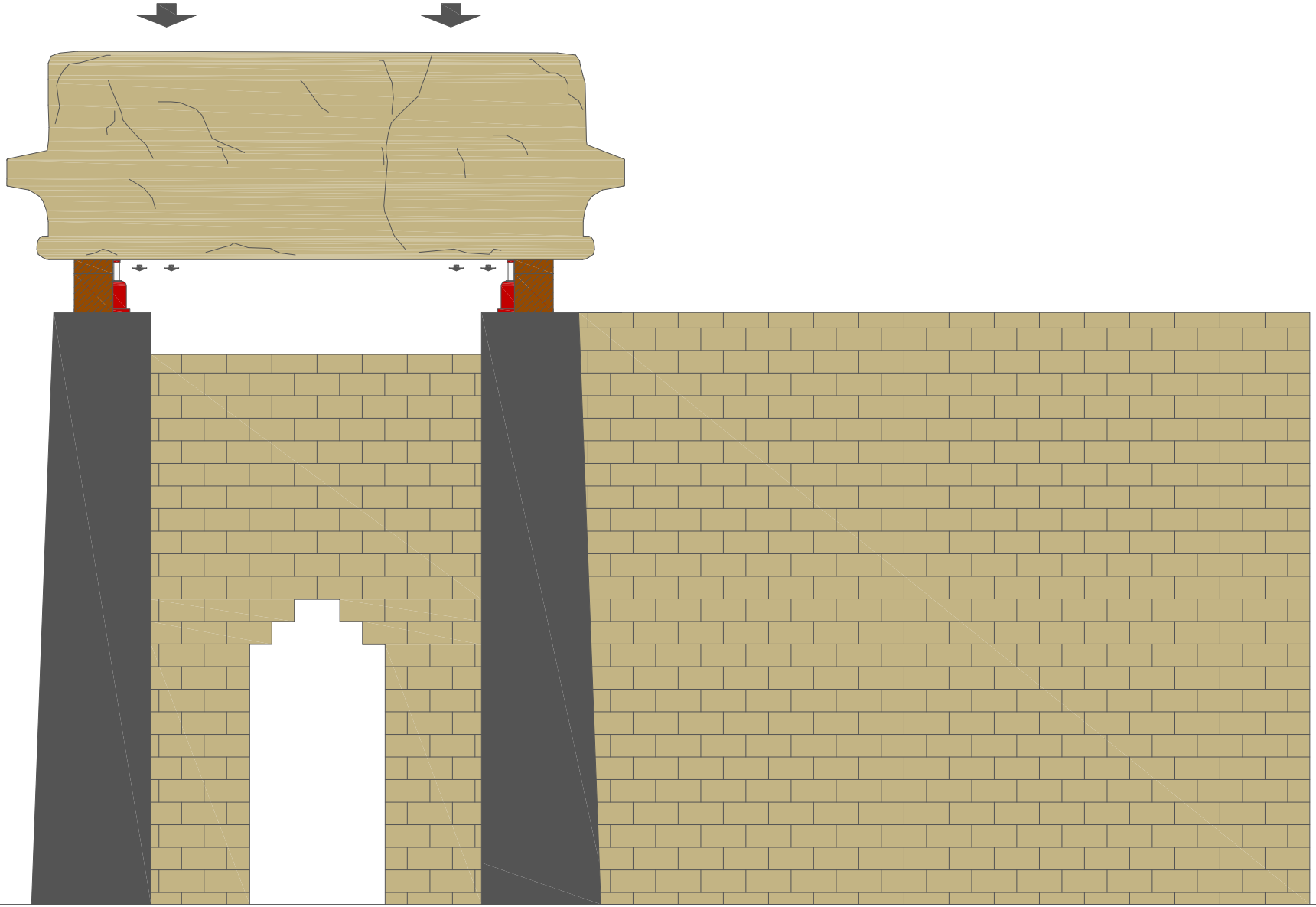
0 10 50 100cm

Après réglage de la position exacte de la dalle, les vérins sont installés en arrière des poutres.



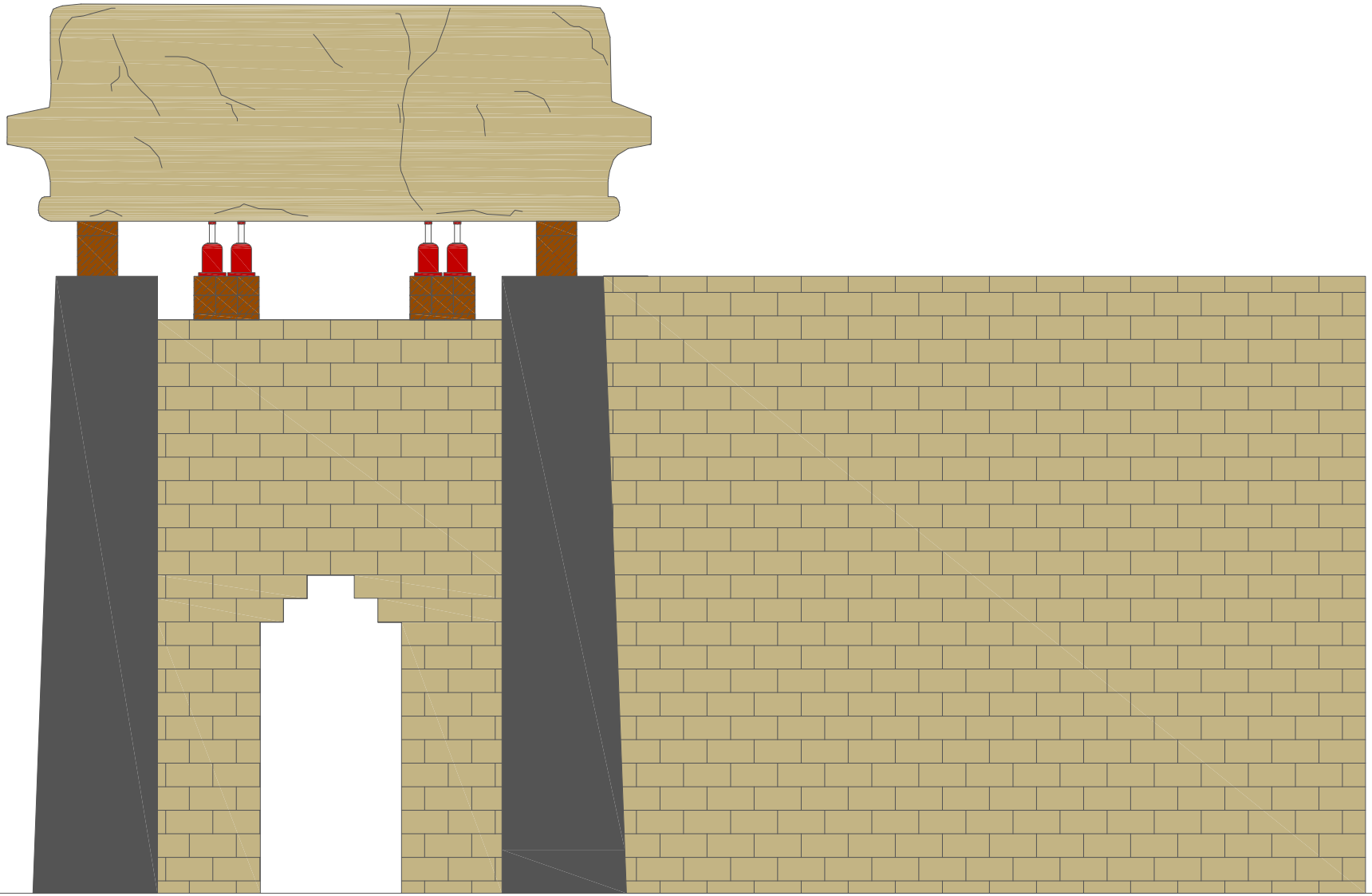
Levage.

0 10 50 100cm



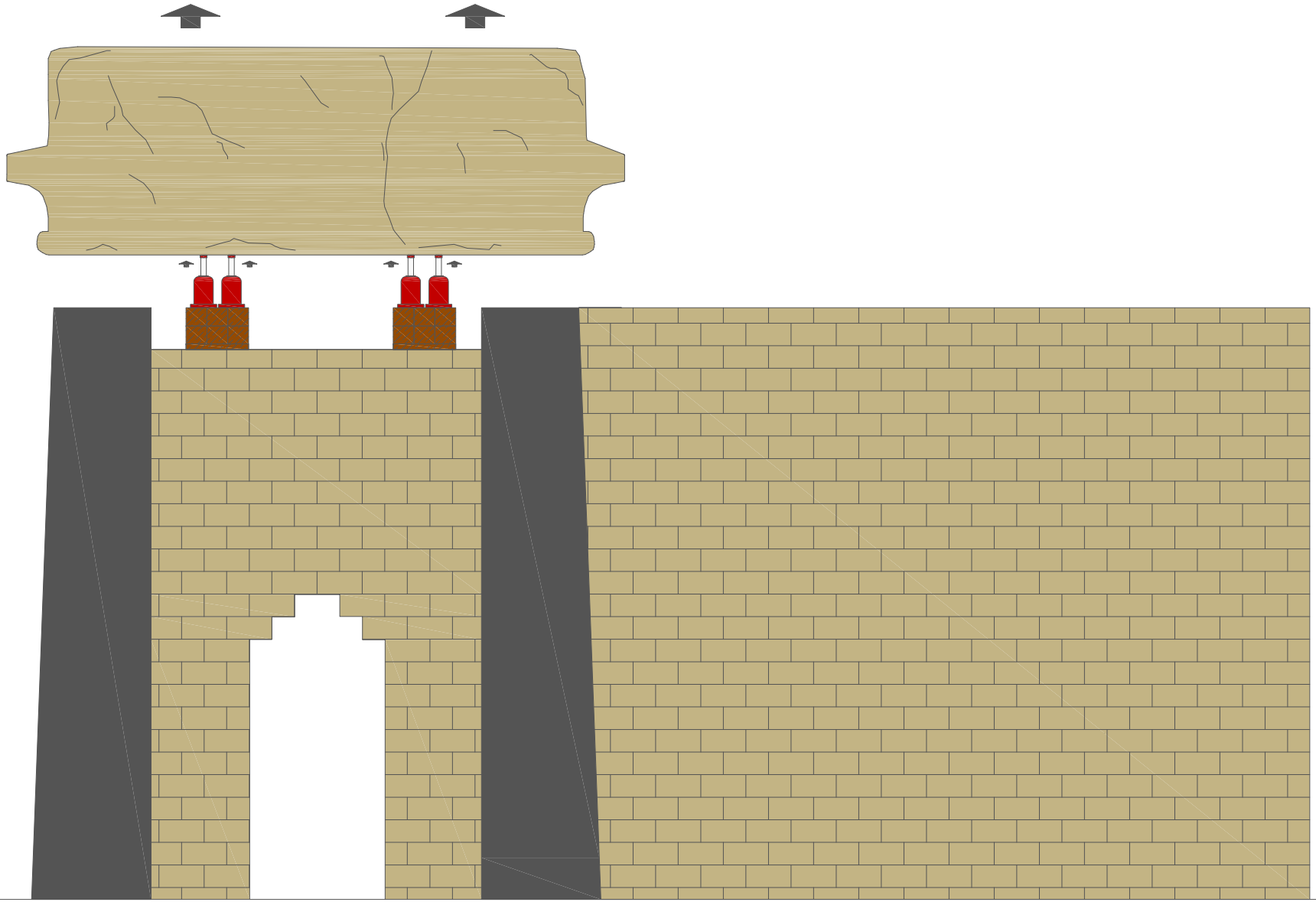
Pose sur cales au sommet des parois.

0 10 50 100cm



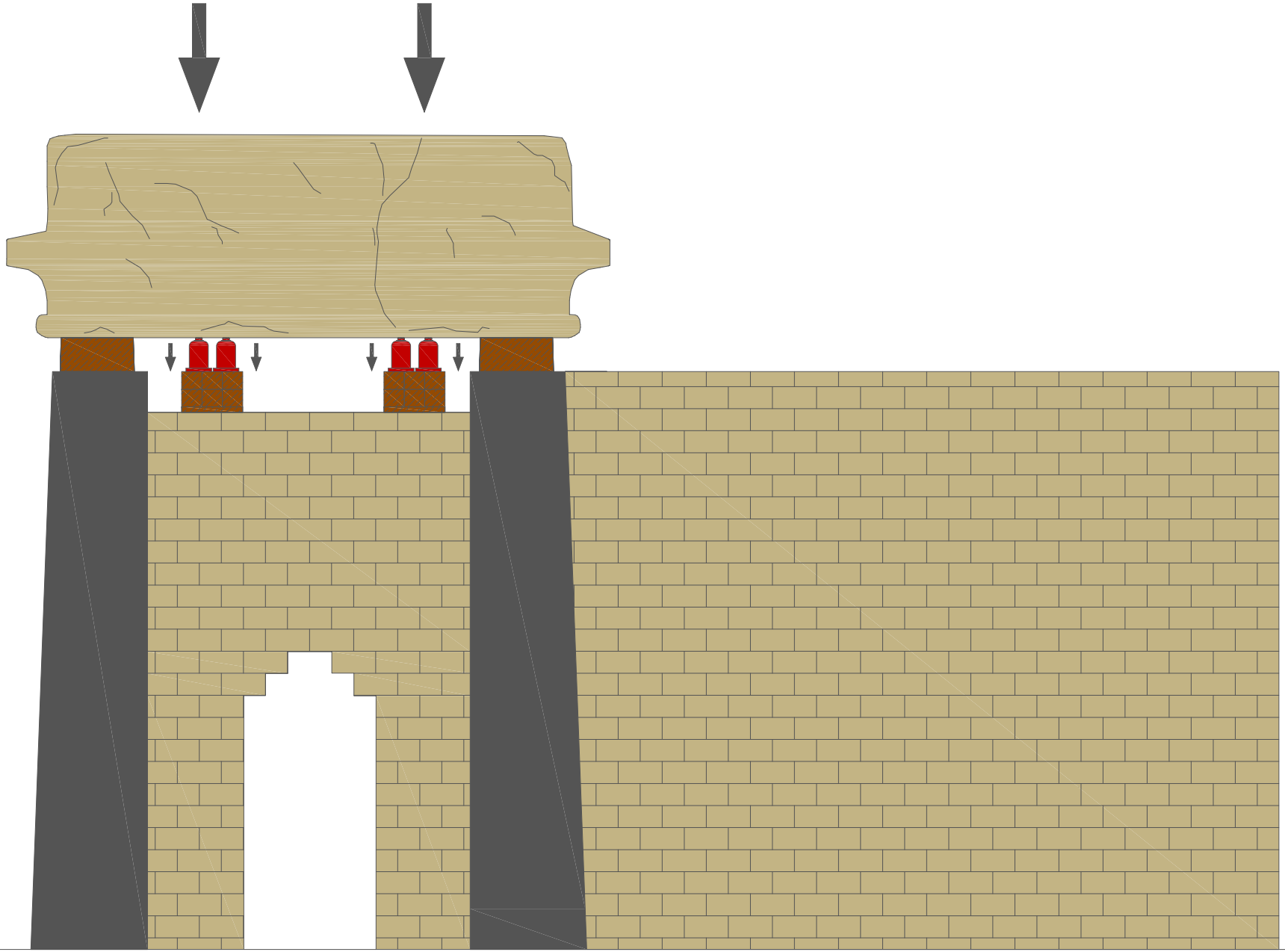
Installation des vérins en partie basse.

0 10 50 100cm



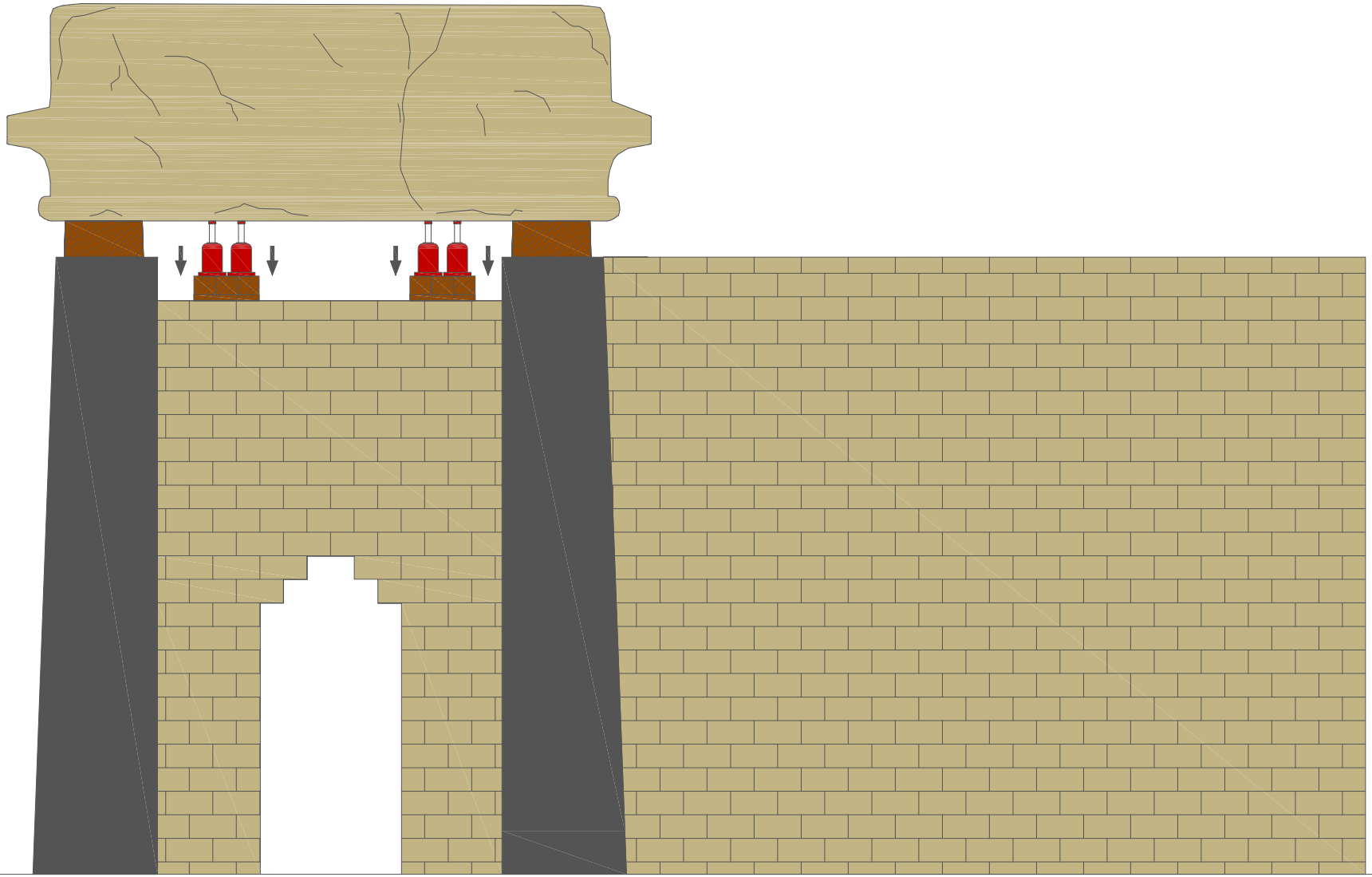
Levage (1cm) et retrait des cales.

0 10 50 100cm



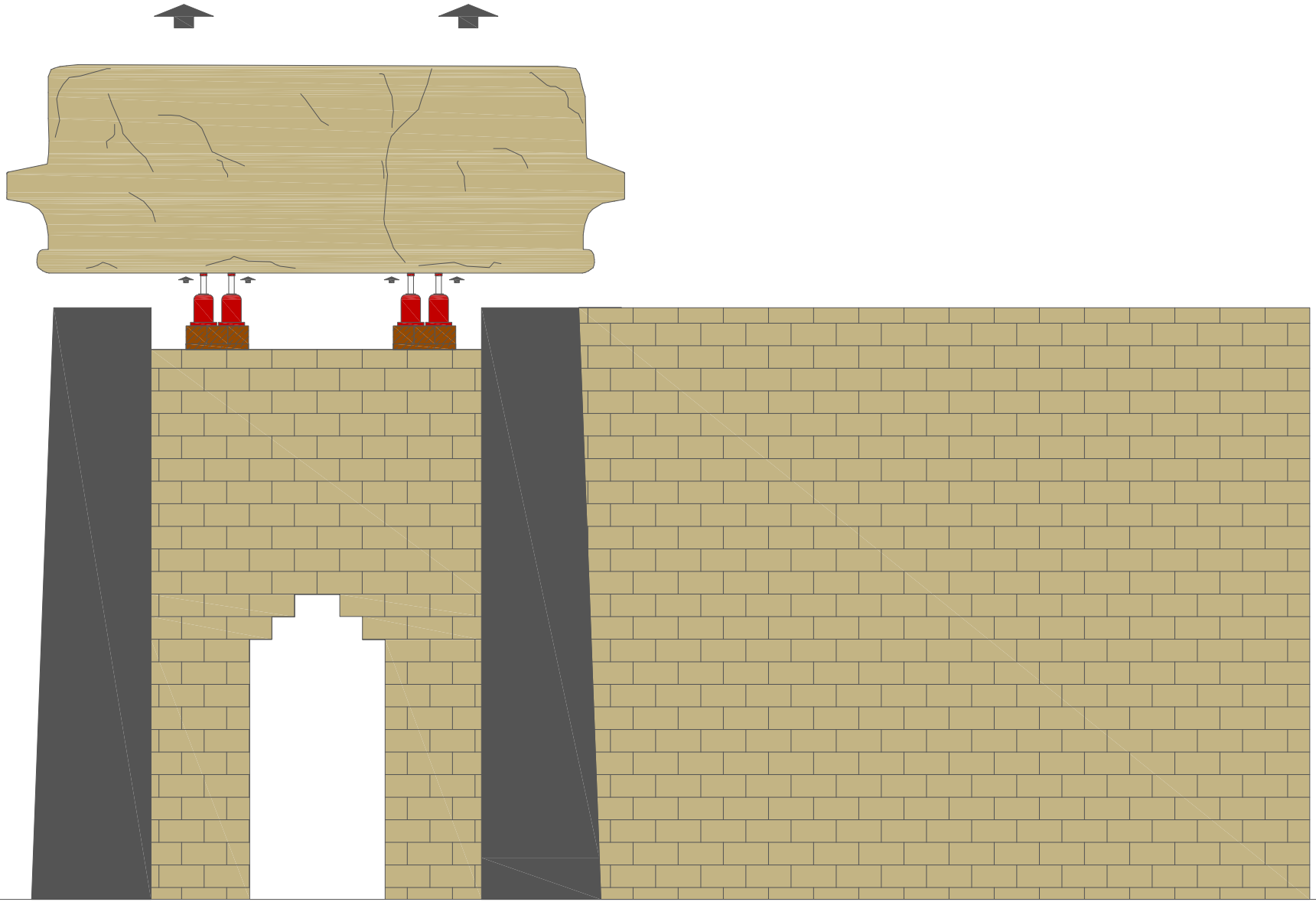
Descente du bloc sur des cales d'épaisseur inférieure.

0 10 50 100cm



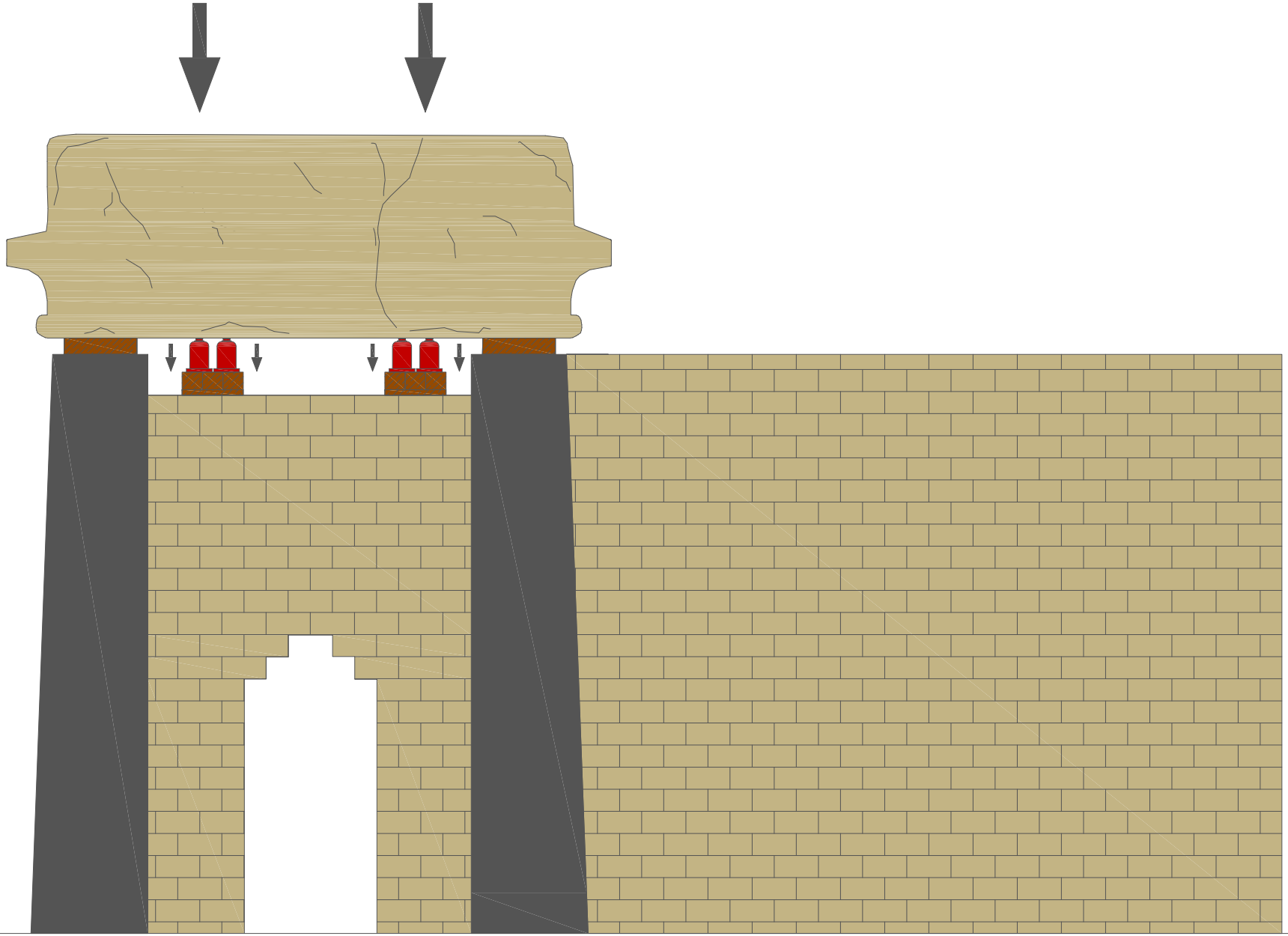
Installation des vérins à une altitude inférieure.

0 10 50 100cm



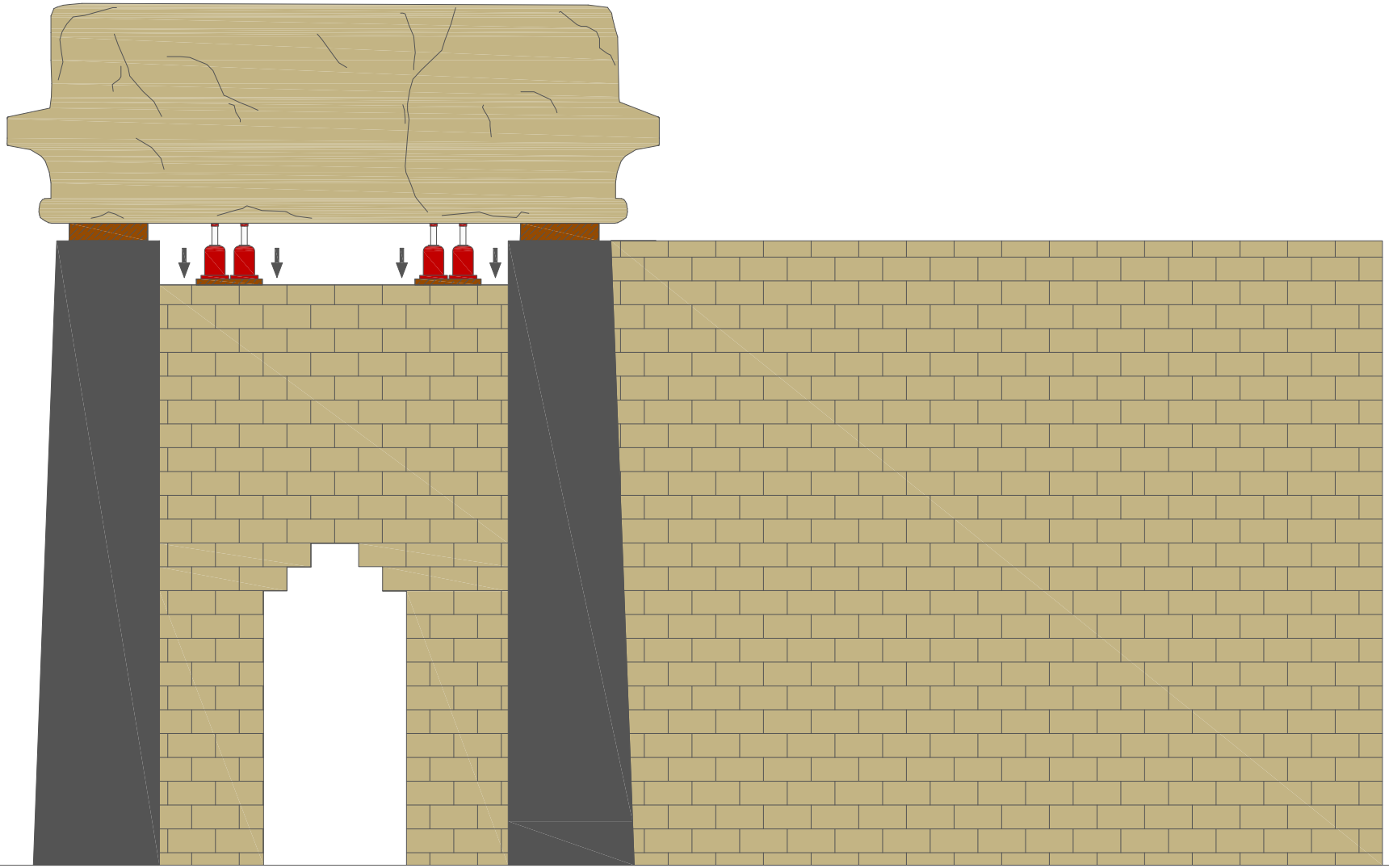
Levage (1cm) et retrait des cales.

0 10 50 100cm



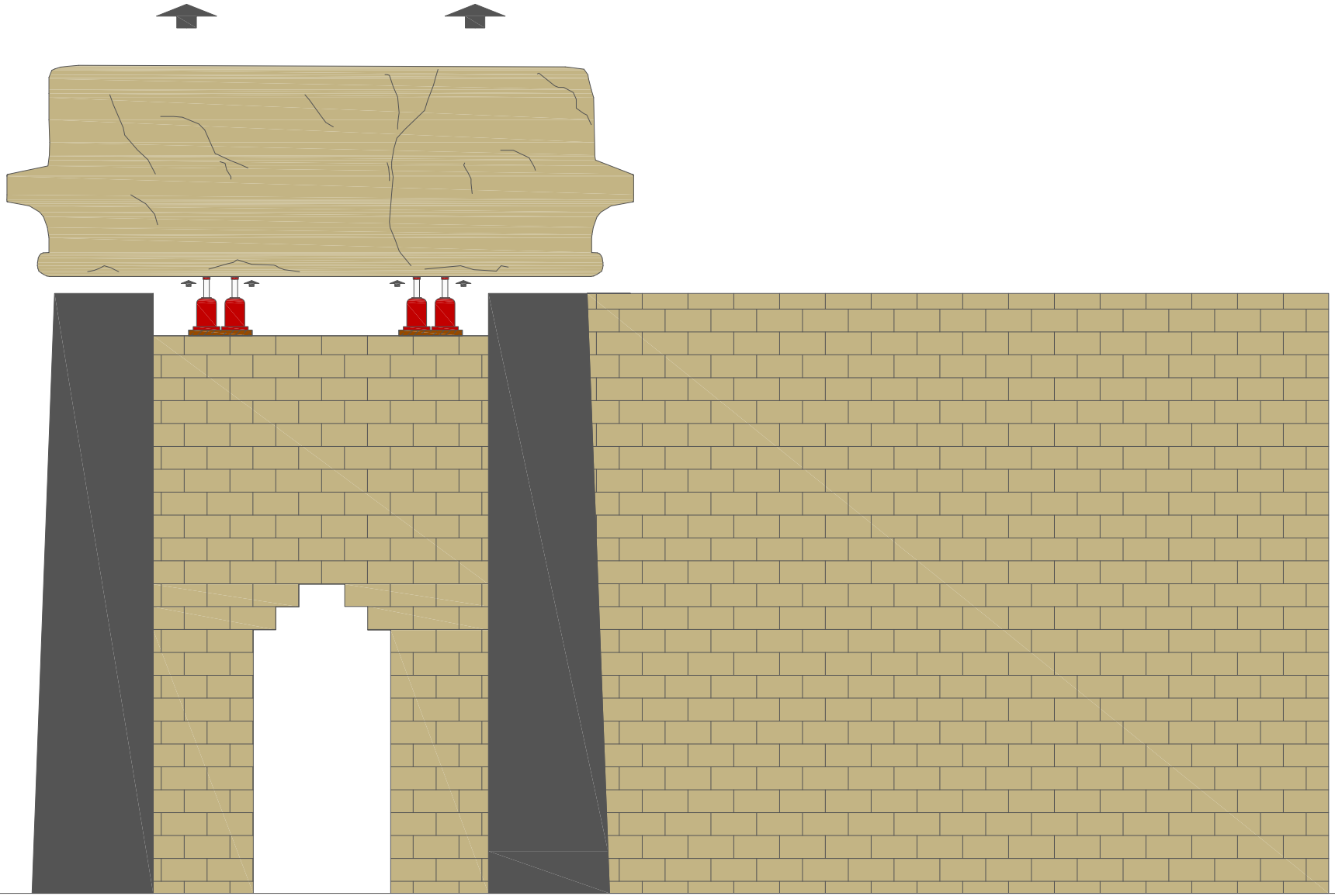
Descente du bloc sur cales d'épaisseur inférieure.

0 10 50 100cm



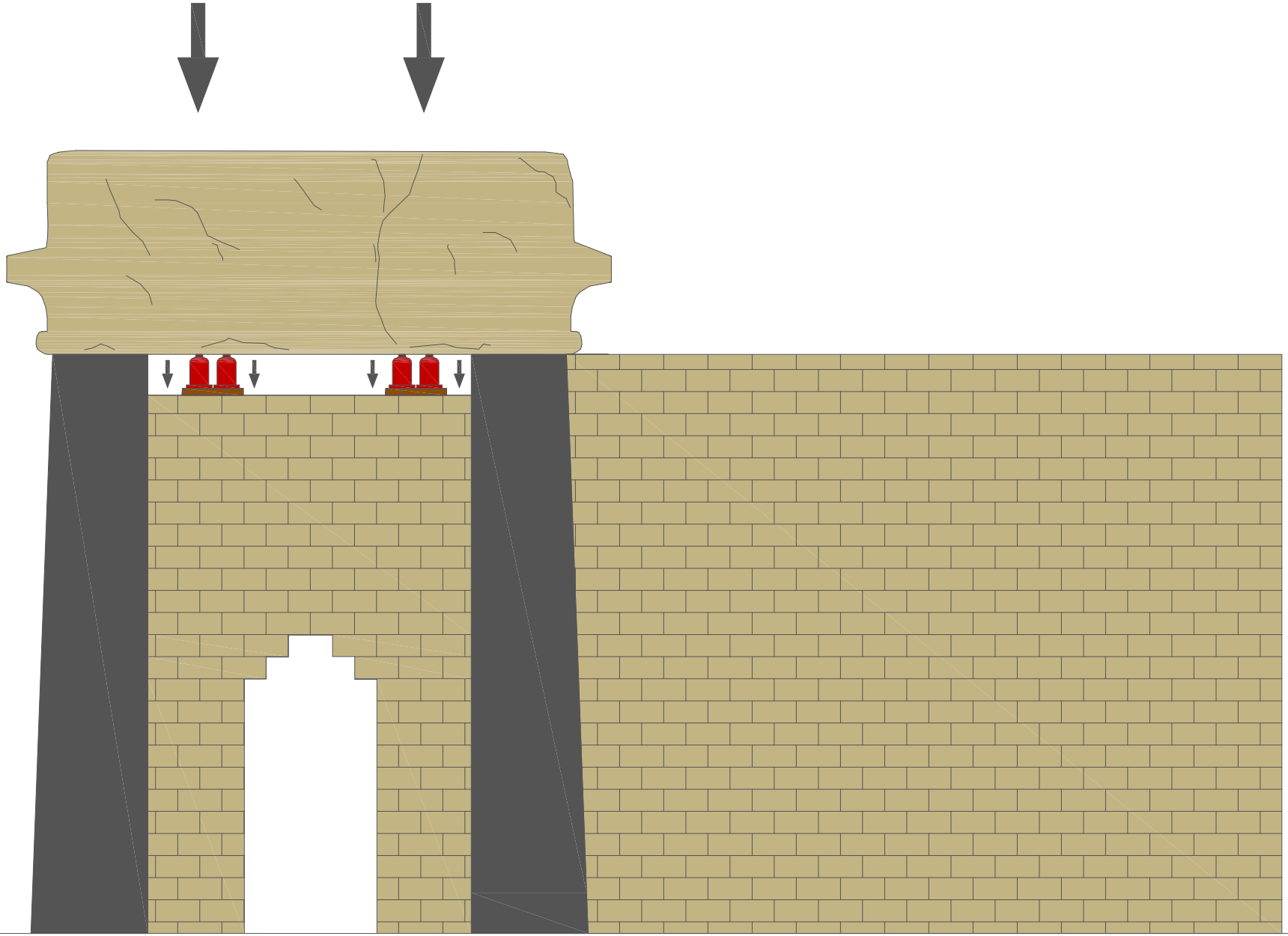
Installation des vérins à une altitude inférieure.

0 10 50 100cm



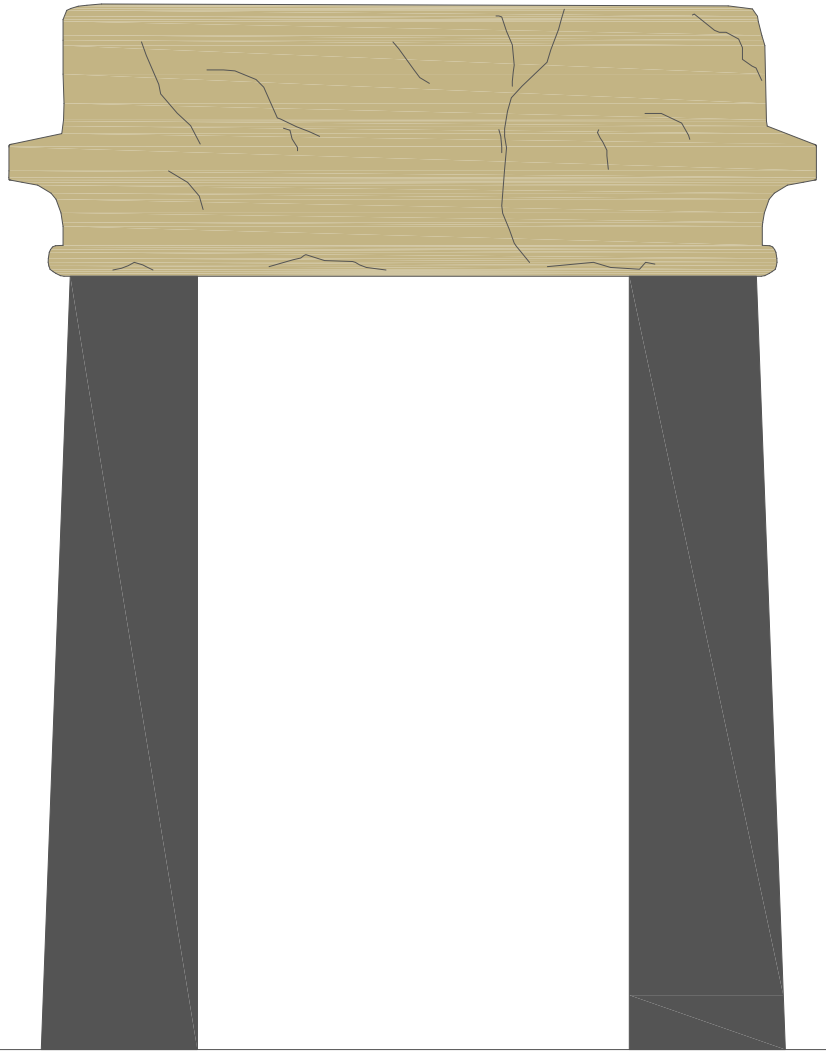
Levage (1cm) et retrait des cales.

0 10 50 100cm



Descente du bloc dans sa position finale.

0 10 50 100cm



Destruction des murs de levage.

0 10 50 100cm