

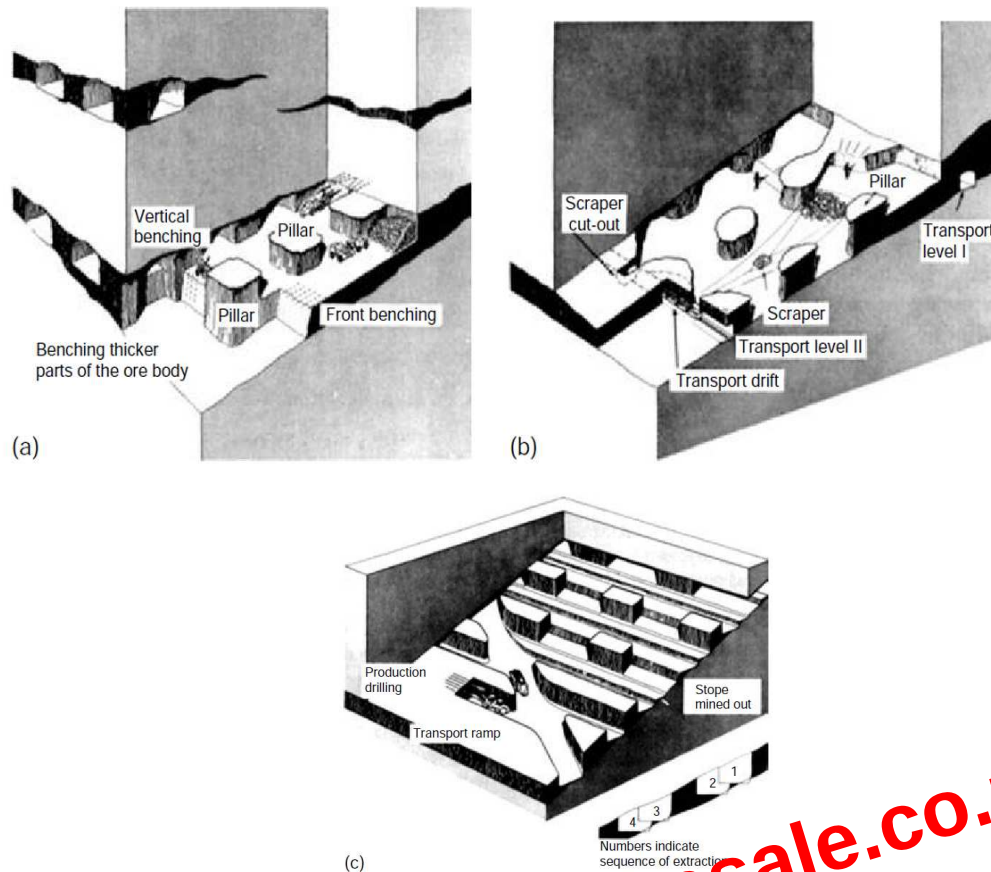


Figure 16.4 (a) Classic room and pillar for thick sedimentary coal or non-coal deposits. Benching shows to mine-out deposits in two lifts using trackless sets of equipment. (b) Room and pillar as applied for inclined deposits. (c) Step room and pillar mining for inclined deposits.

Figure 16.4(c) depicts layout for 'Step Room and Pillar'. Its application can't be generalized but it is suitable for tabular orebodies with dip in the range of $25-30^\circ$. By orienting stope at certain angle across the dip, stope bottom assumes an angle that is suitable for trackless equipment to undertake various unit operations.

A special 'Angle' orientation (it could be termed as apparent dip) of haulage drifts and stopes with respect to the dip, creates work areas with level bottoms. This feature enables trackless mucking and drilling equipment to operate in inclined ore bodies.

Stopes are attacked from top to down side step by step as shown by sequence numbers in this layout.

In this layout access drifts are driven transversely across the dip at an angle suitable for the equipment movement. Ore extraction is made from a series of stope drifts that run horizontally following the strike of orebody working from top to down. Pillar lefts are sufficiently narrow up-dip, thereby; free movement of mucking equipment can extract broken ore efficiently. Stopes are cut successively down-dip, each stope slice having approximately horizontal floor and being stepped in the middle of the second half of the stope. Crosscuts are also mined with horizontal floors for the movement of trackless equipment. This results in footwall being stepped down-dip except where it is cut by equipment roadways.