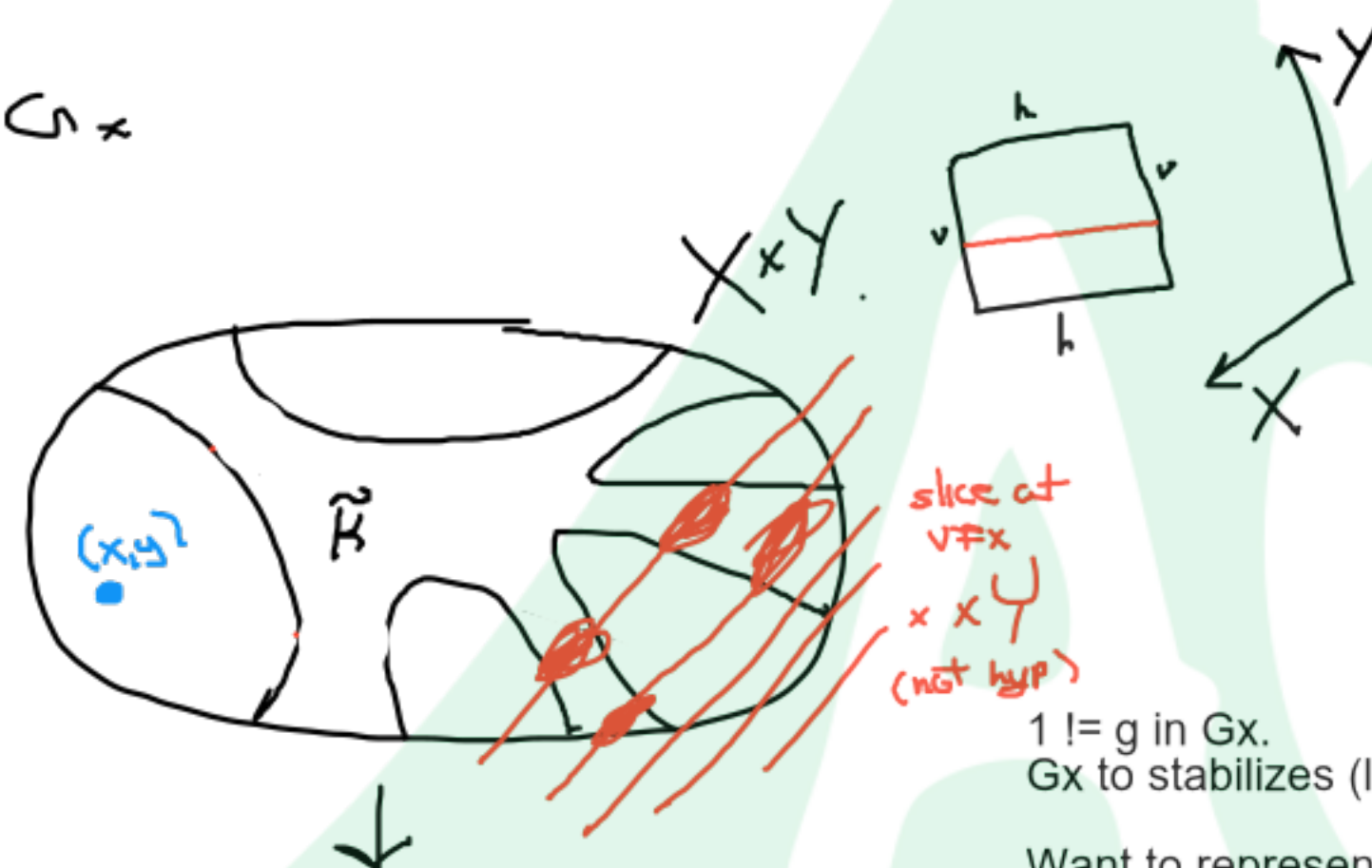


$$1 \neq g \in G_x$$

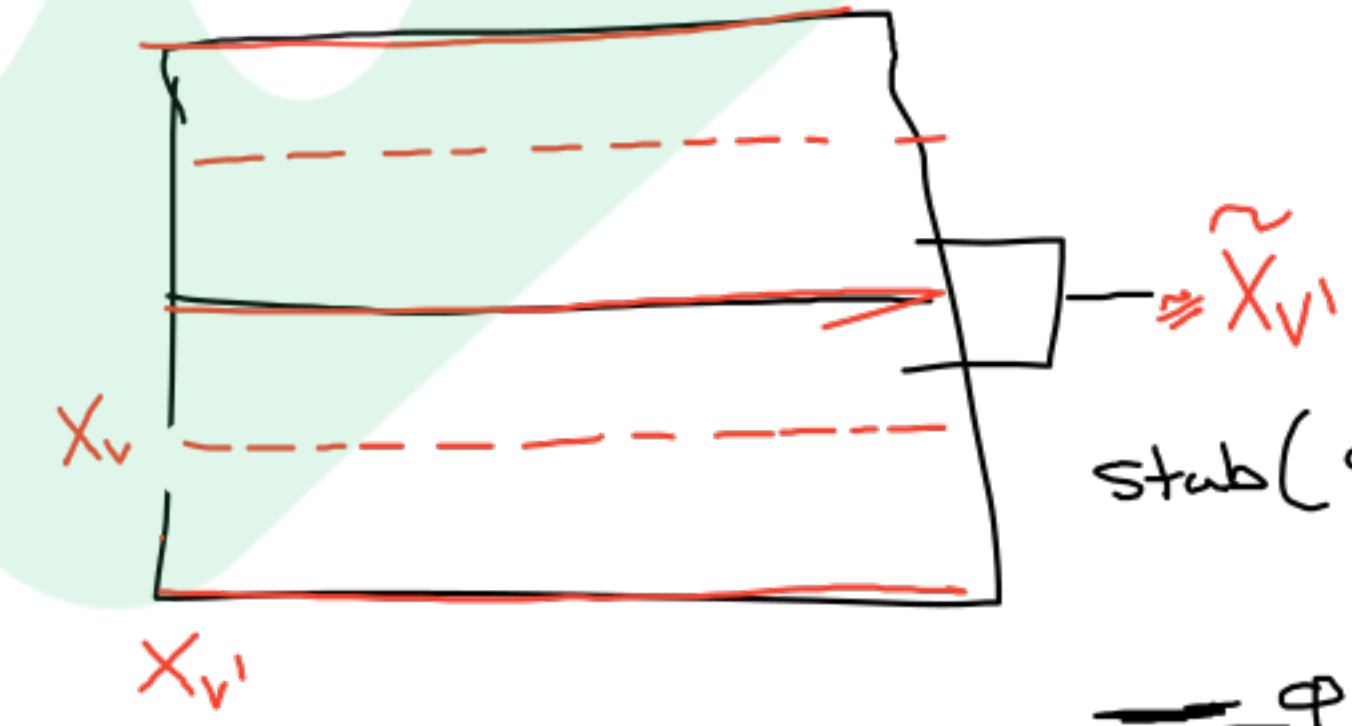
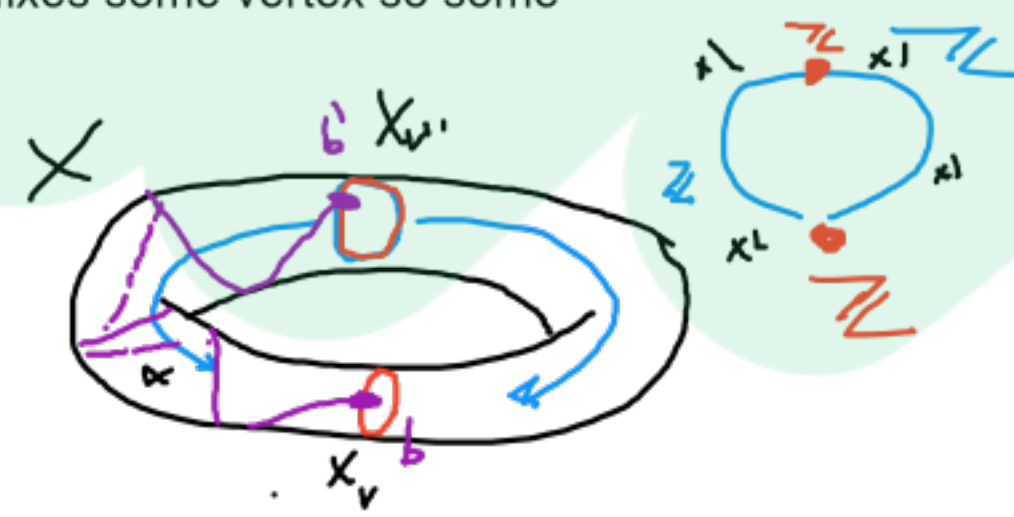
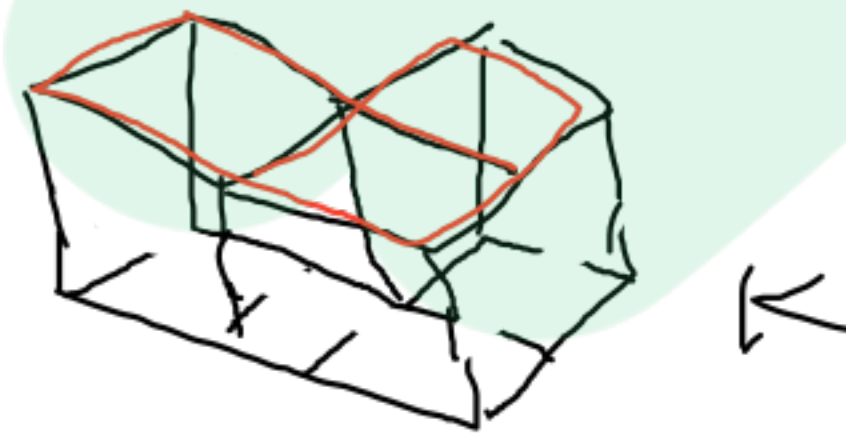


Vertical splitting = Y splitting = cutting vertical edges  
 $\Rightarrow$  vertex spaces are made of horizontal edges

slice at  $v \neq x$   
 $x \times Y$   
 (not hyp)

$1 \neq g$  in  $G_x$ .  
 $G_x$  to stabilize (little  $x$ )  $\times Y$

Want to represent  $g$  as a loop in  $K$  that's all horizontal edges  
 $g$  fixes some vertex so some



$\approx \tilde{X}_{v'}$   
 $\text{stab}(\text{comp pre-image of } X_v)$   
 $\equiv \varphi_x$  for same  $x$

$$\varphi_x \begin{matrix} \rightarrow \pi(X, b) \\ \rightarrow \pi(X_{v'}, b') \end{matrix}$$

$$\left( \text{Im } \varphi_x \sim \text{Im } \varphi_{x'} \text{ in } \pi(X, b) \right)$$

$\Rightarrow$  cc of vtx subgp well-def.

Choices  $b, b', b'', \dots$   
 $\alpha: b \rightarrow b'$   
 $\beta: b \rightarrow b''$   
 $\gamma: b \rightarrow b'''$