





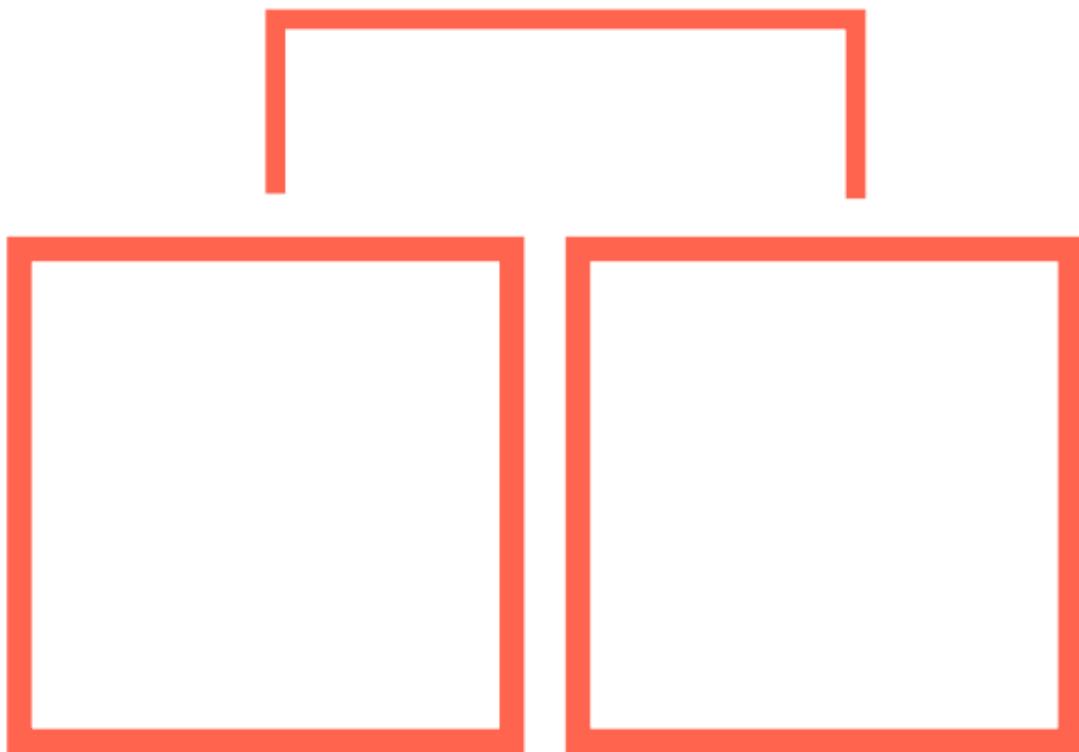








Ground Sample Distance



Many domains define absolute scale

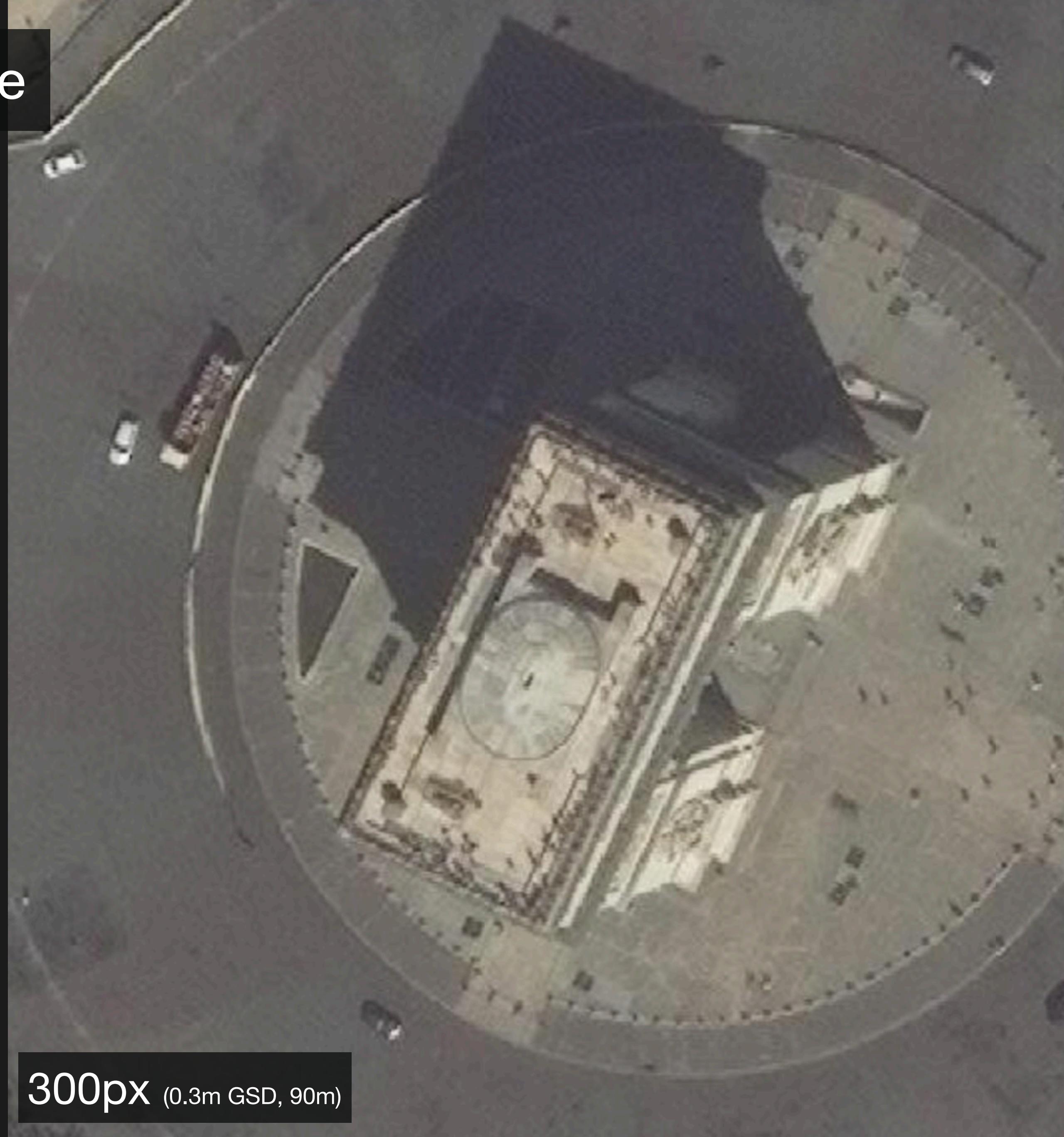


Problem: Transformers reason in pixel space

$$v_x(pos, 2i) = \sin \frac{pos}{10000^{\frac{2i}{D}}}$$
$$v_y(pos, 2i + 1) = \cos \frac{pos}{10000^{\frac{2i}{D}}}$$



300px (10m GSD, 3,000m)



300px (0.3m GSD, 90m)