Like a sculptor gradually refining marble from rough block to statue

Forward Process	Reverse Process
Original Data x_0 Clear, structured data	**Pure Noise x_t** Start from random noise
↓	↓
+ Gaussian Noise Systematically add noise	**Neural Network** Learn denoising function
↓	↓
Intermediate States Gradually corrupted data	**Iterative Denoising** Step-by-step noise removal
↓	↓
Pure Noise x_t Complete randomization	**Generated Data x_0** Clean, realistic output

Markov Chain

Key Insights

✓ Easier to learn small denoising steps

✓ Each step depends only on previous

✓ More controllable than direct generation