GraffitiEraser

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Problem

Problem

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Challenges

- Large foreground area
- Not only remove the graffiti but also recover the texture of background
- Replacing, not rebuilding
- Applying to walls of all kinds

Solution

1. Identify background and foreground pixels (histogram)

2. Collect background sample database

3. Scan image and identify foreground blocks

4. Find replacement sample for every foreground block (LDNE)

5. Blend edge of replacement sample with neighbors (Dynamic Programming)

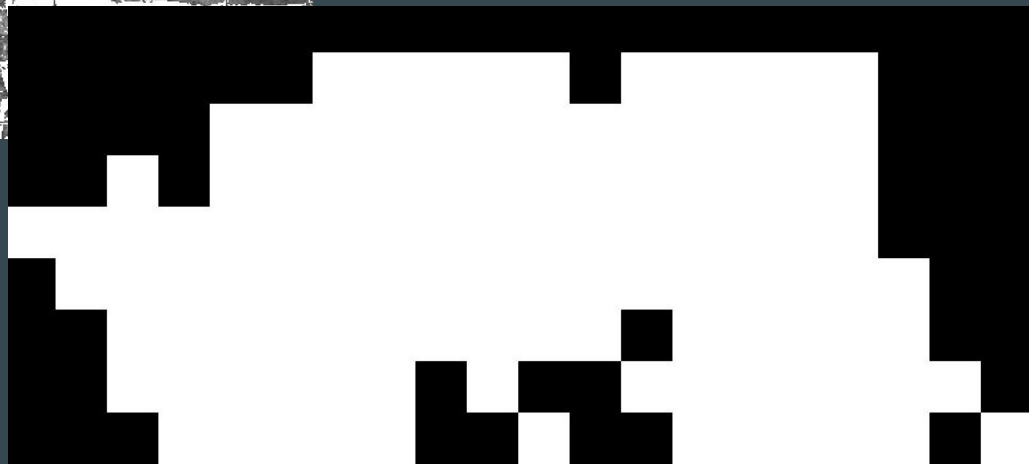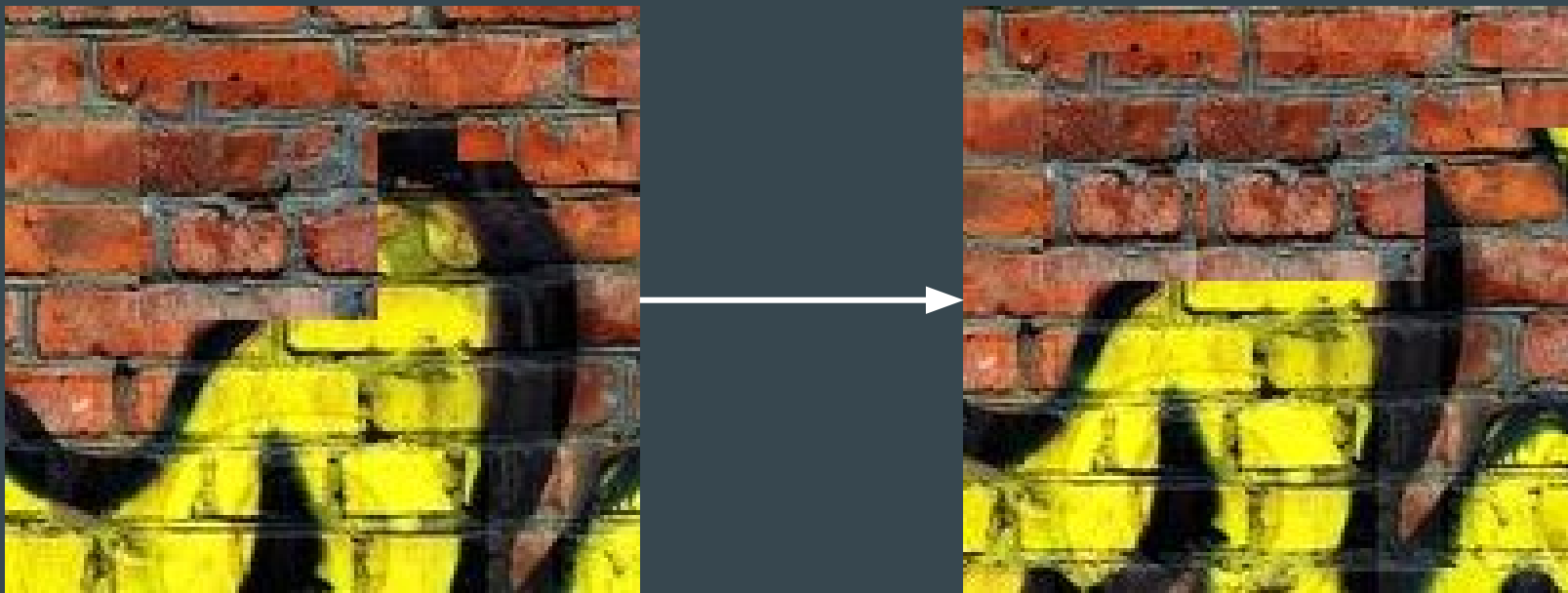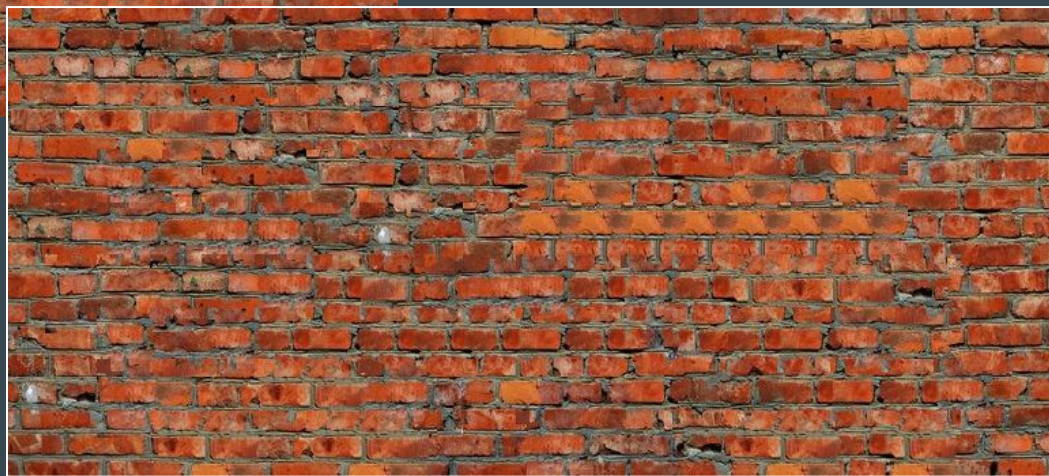6. Update image and go back to step 3 until finishing the whole image

1. Identify background and foreground pixels
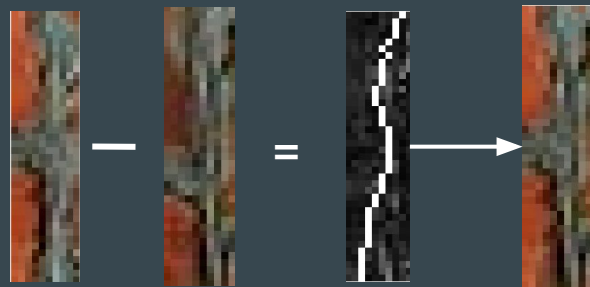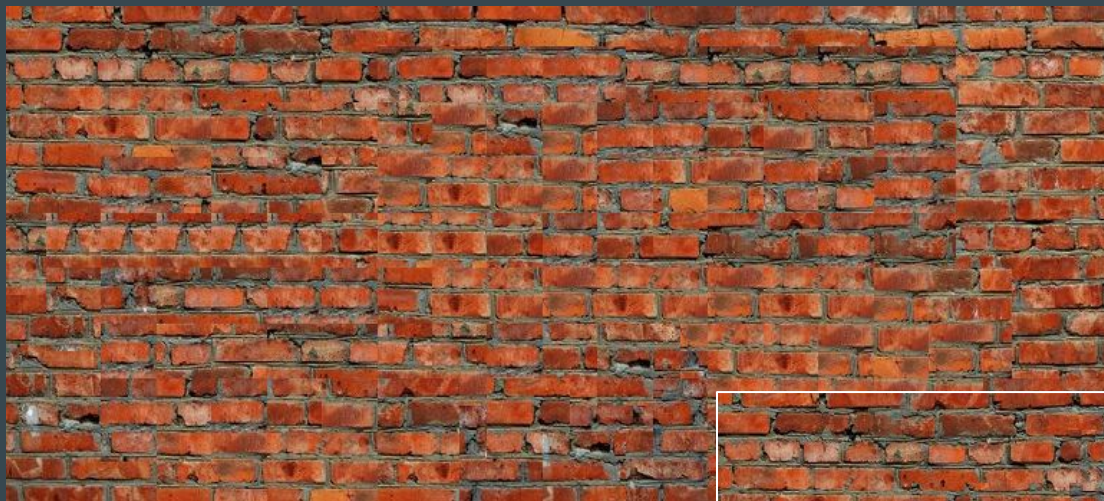
2. Collect background sample database

3. Scan image and identify foreground blocks

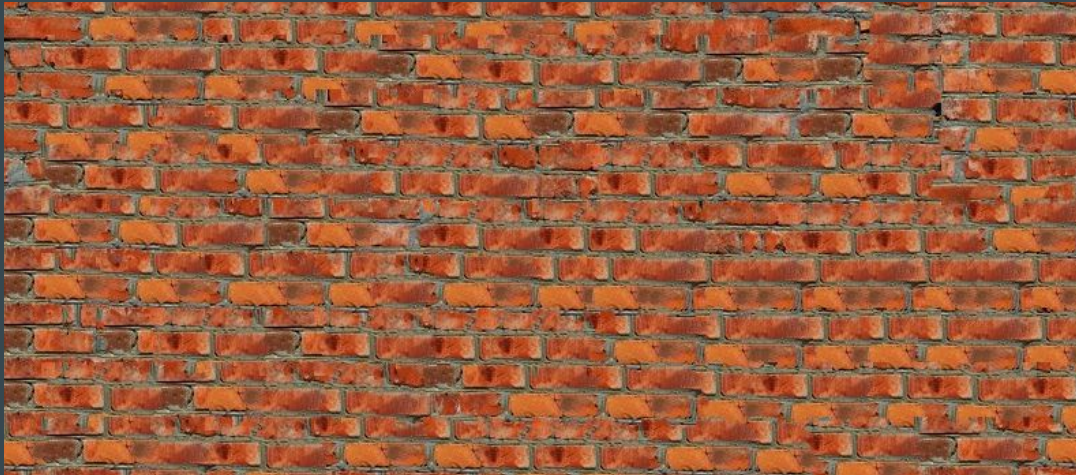4. Find replacement sample for every foreground block

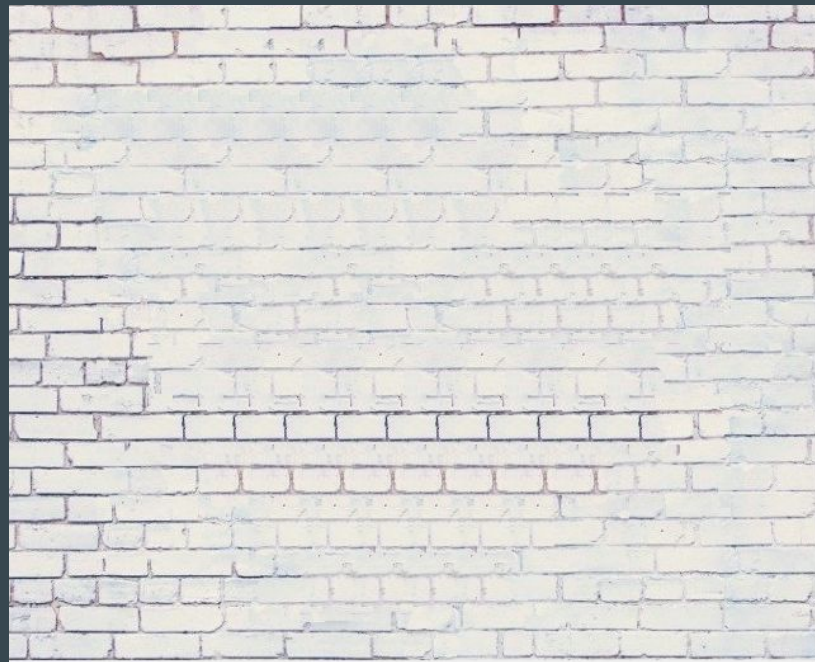# 5. Blend replacement samples with neighbors

Result

Result

Result

Result

Result

Result

Result

Result

Demo

Potential improvements

- Smarter sampling
- More robust resolution options
- Distinguish between different sections of a background

Thank You