

# Supplementary material A: results on cars

## 1 RESULTS

Each plate shows consistent changes over time. In each plate, we show the original input images (top row), their translation into another period (middle row) and the absolute differences (bottom row) between the top and middle images. The absolute differences are shown as heatmaps where bright yellow color indicates the maximum absolute difference within the image, while dark blue colors correspond to small differences. We superimpose the heatmaps on a low contrast version of the original input image to further highlight the changes produced by our model.



(a) Input images of cars from the 1960s (top row) and their generated translations into 1990s (middle row). The difference images (bottom row) highlight the changes in the headlights of the cars, going from small round ones to large rectangular ones, as well as the increasing size of the car windows and windshield.



(b) Input images of cars from the 1940s (top row) and their generated translations into 1990s (middle row). In addition to the changes in the shape of headlights and the size of windows, similar to (a), the difference images (bottom row) highlight the disappearing metallic bumpers as well as the evolution of the shape of the hood, which flattens over time.



(a) We show 1960 cars (top) transformed into 1940 cars (middle) and showing the difference between them (bottom). A change that often appears in our results is the appearance of large, white wheels when cars are transformed into older cars. This exhibits the characteristic shape and color of older cars' wheels that can indeed be seen in our dataset.



(b) Input images of cars from the 1990s (top row) and their generated translations into 1940s (middle row). The difference images (bottom row) highlight the appearing running board (or footboard) as well as the changing appearance of wheels.



(c) When examining differences between original cars from the 1990 (top) and their generation in the 1940s decade (middle), an important part of the change concerns the hood, which seems bulkier and more angular in older cars.