

Personal Aesthetics for Soft Biometrics: a Generative Multi-resolution Approach

[Supporting Material]

anonymous for blind
review

The supporting information includes some figures for getting a better insight on the proposed framework.

Figures 1-4 report the full Counting Grid shown in the main paper in Fig. 2. In this case the whole picture has been split into 4 parts: top left (Fig. 1), top right (Fig. 2), bottom left (Fig. 3) and bottom right (Fig. 4). In such a way it is possible to better understand how visually similar pictures are mapped nearby.

Figures 5, 6, 7 represent the entire pool of 200 preferred pictures of the users 9, 92 and 38: in the main paper (Fig. 2) have been reported only some of them. This way, it is easier to figure out that user 9 and 94 prefer several similar pictures, differently from user 38, whose preferred images are dramatically diverse.

Fig. 8 show CGs at resolutions $r=5$ ($S=40$), 15 ($S=30$), 25 ($S=20$), 35 ($S=10$). The aim of the figure is to show how, while going from coarse (bottom-right) to finer (top-left) resolution, the semantics of the CG emerge as peaked regions, where each region carries out a different type of images. For example, in this case a set of images where the orange is predominant are highlighted. As visible, at the coarser resolution the orange images lie in two regions, where other tonalities are also present. Going to finer resolutions has the effect of compacting those images, until they form a compact area at resolution 35 ($S=10$).

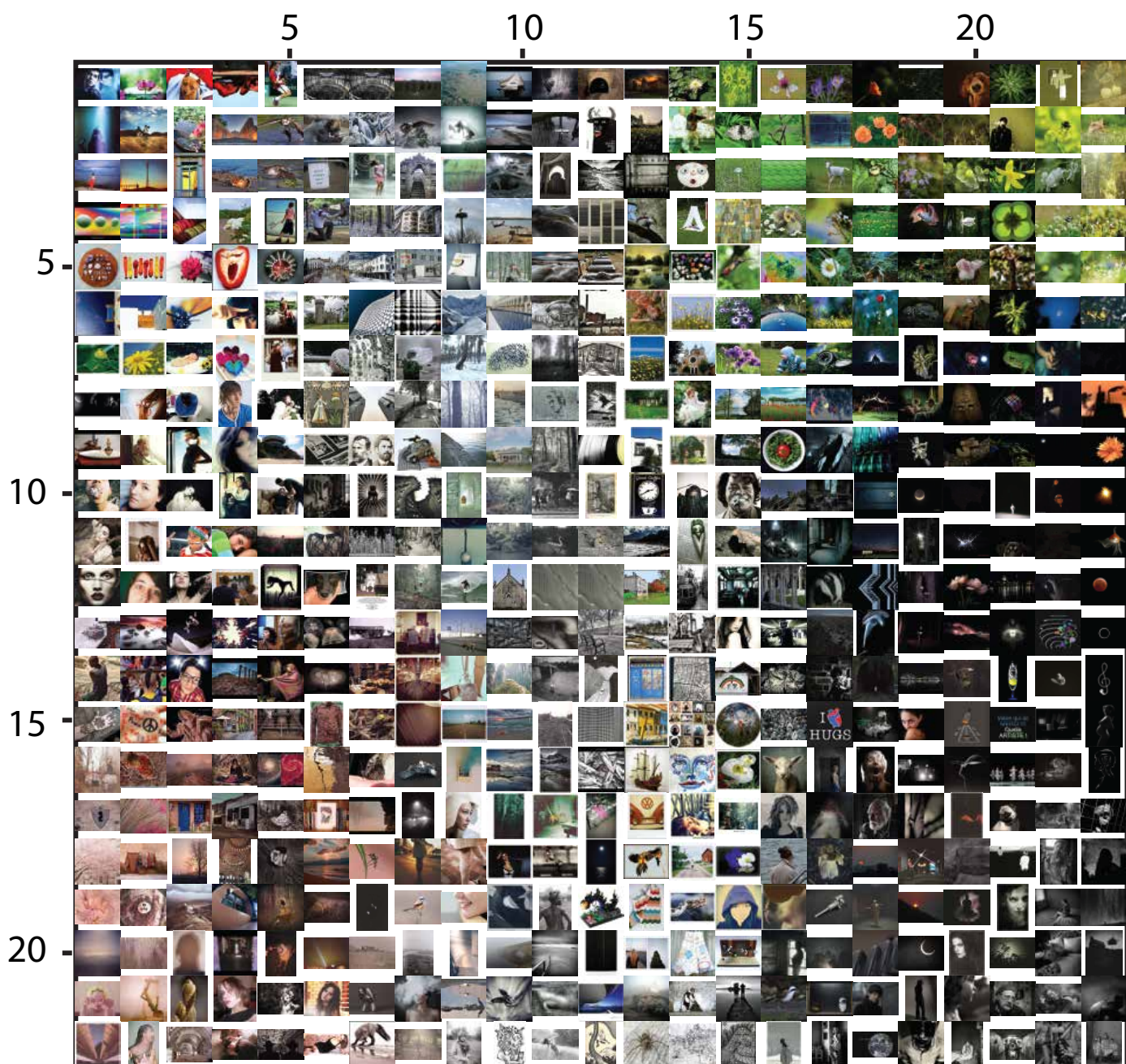


Figure 1: Top-left part of Counting Grid at the highest resolution $r=35$, $S=10$

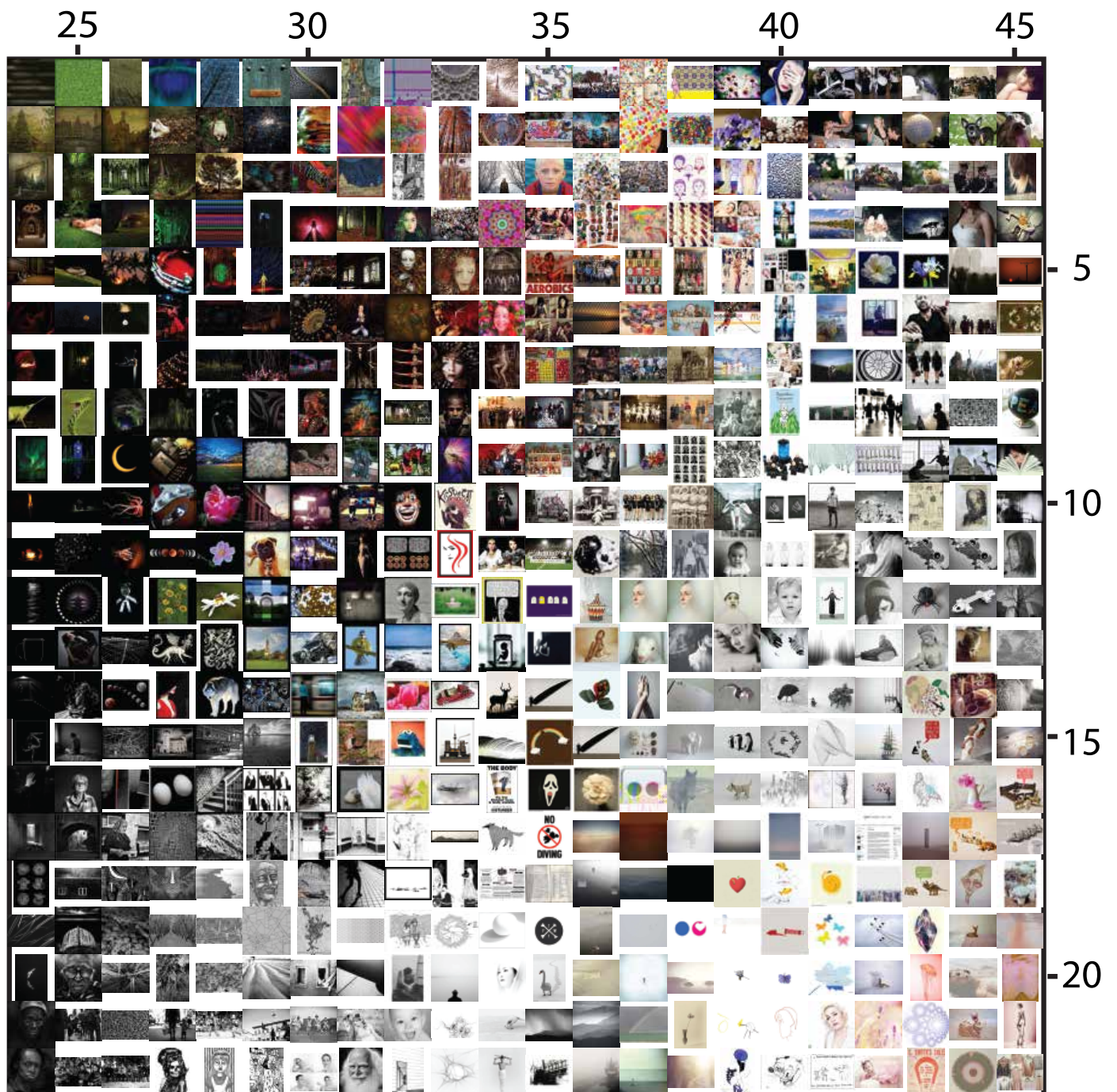


Figure 2: Top-right part of Counting Grid at the highest resolution $r=35$, $S=10$



Figure 3: Bottom-left part of Counting Grid at the highest resolution $r=35$, $S=10$

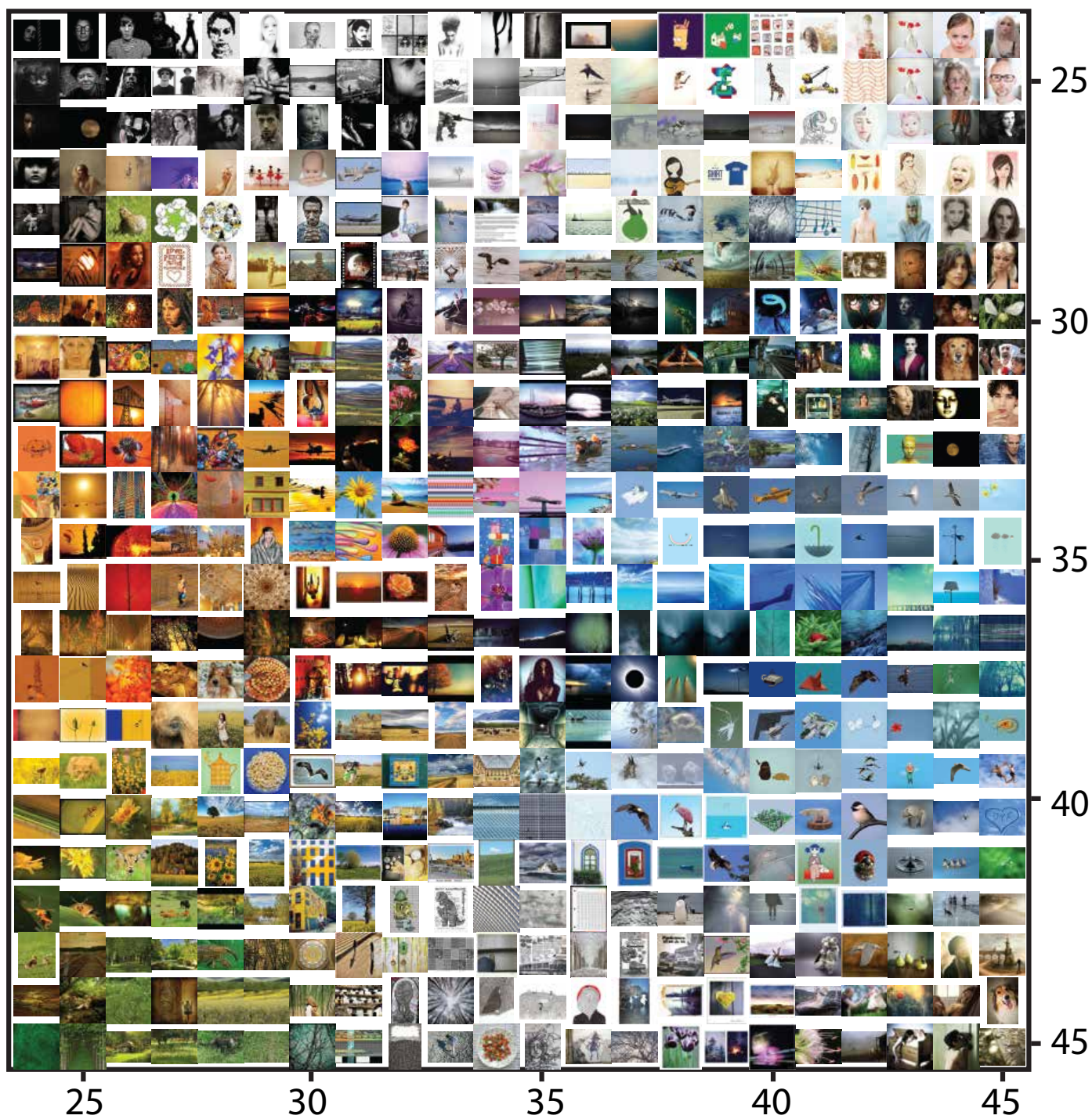


Figure 4: Bottom-right part of Counting Grid at the highest resolution $r=35$, $S=10$

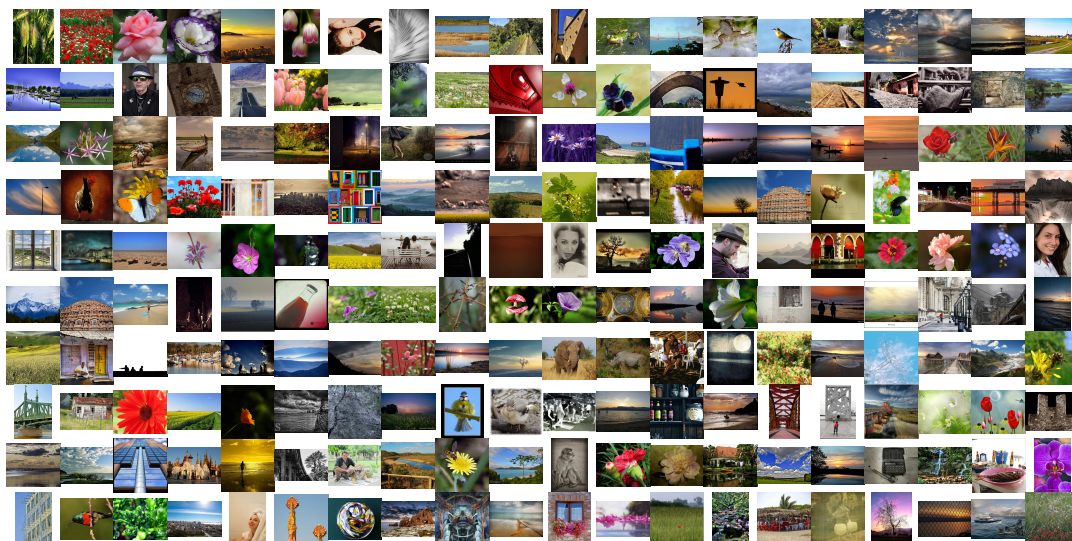


Figure 5: Pool of 200 pictures preferred by user 9.

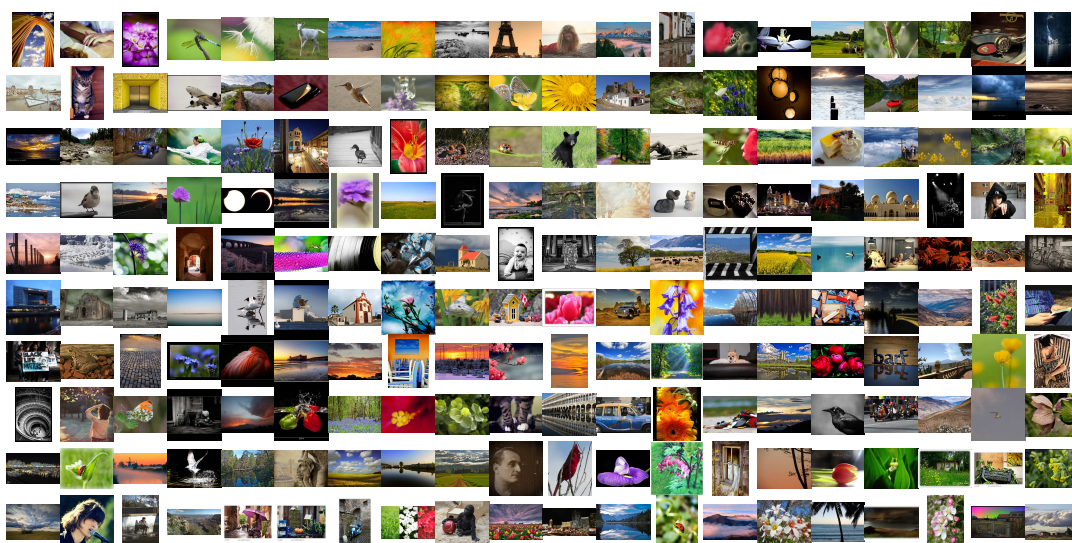


Figure 6: Pool of 200 pictures preferred by user 94.

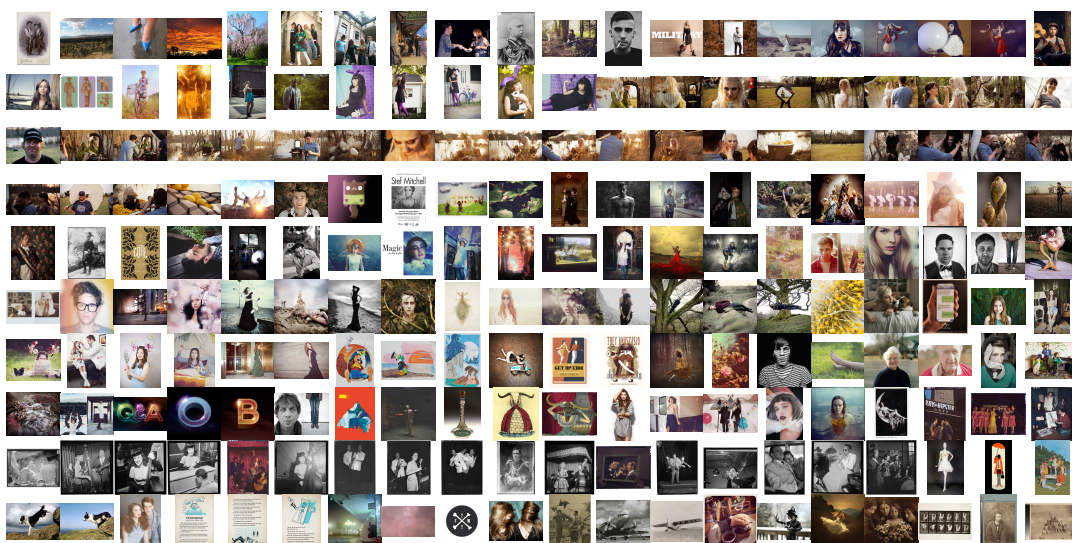


Figure 7: Pool of 200 pictures preferred by user 38.



Figure 8: CG at different resolutions $r=5, 15, 25, 35$ starting from the bottom right to the top left of the figure.