Figure 8: Static MBC compression of the 270–frame table–tennis sequence *without* residuals.
(a) The static mosaic image constructed using a temporal median.
(b) The reconstructed static mosaic image using EZW compression on the mosaic of Figure 8.a with a compression ratio of 13 : 1.
(c) Some representative frames of the sequence.
(d) The predicted frames from the reconstructed mosaic of Figure 8.b *without adding the coded residuals.* This gives an effective compression ratio of 1260 : 1 for the *entire* sequence.
(e) The significance measure maps of the residuals.

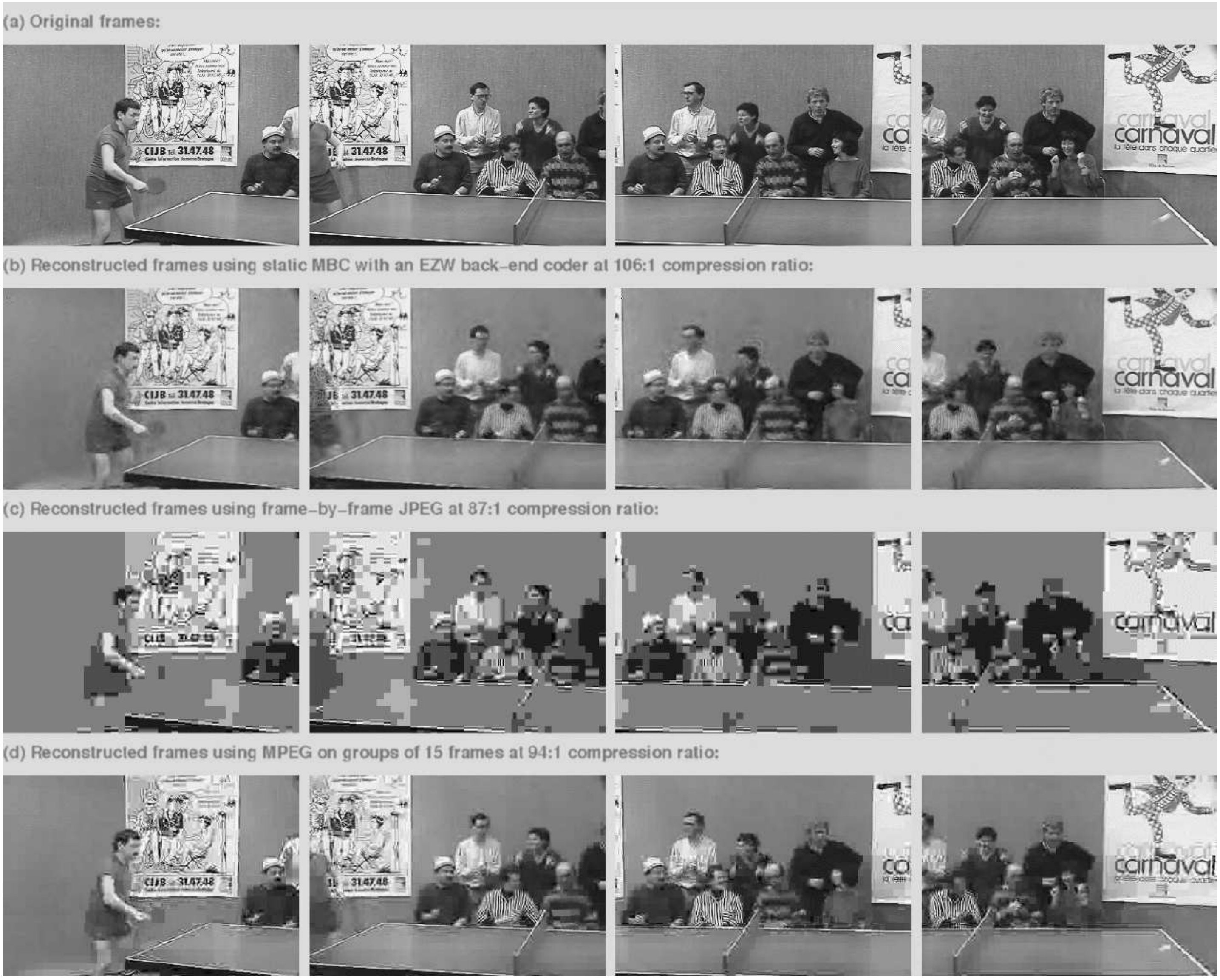

Figure 9: Static MBC compression of the 270–frame table–tennis sequence *with* residuals.
(a) Some representative frames of the sequence.
(b) The reconstructed frames (*with* residuals) using MBC with an EZW (wavelet) back-end coder at an average compression ratio of 106 : 1.
(c) For Comparison: The reconstructed frames using JPEG applied to each individual frame at a compression ratio of 87 : 1.
(e) For Comparison: The reconstructed frames using interframe MPEG to subsequences of 15 frames (i.e., a new I-frame every 15 frames) at an average compression ratio of 94 : 1. Both JPEG and MPEG reconstructions are very blocky, and do not preserve edge information very well. Note the significant differences in the reconstruction quality of the reflections in the tennis table, the text in the pictures on the walls, and the player's arm and bat.

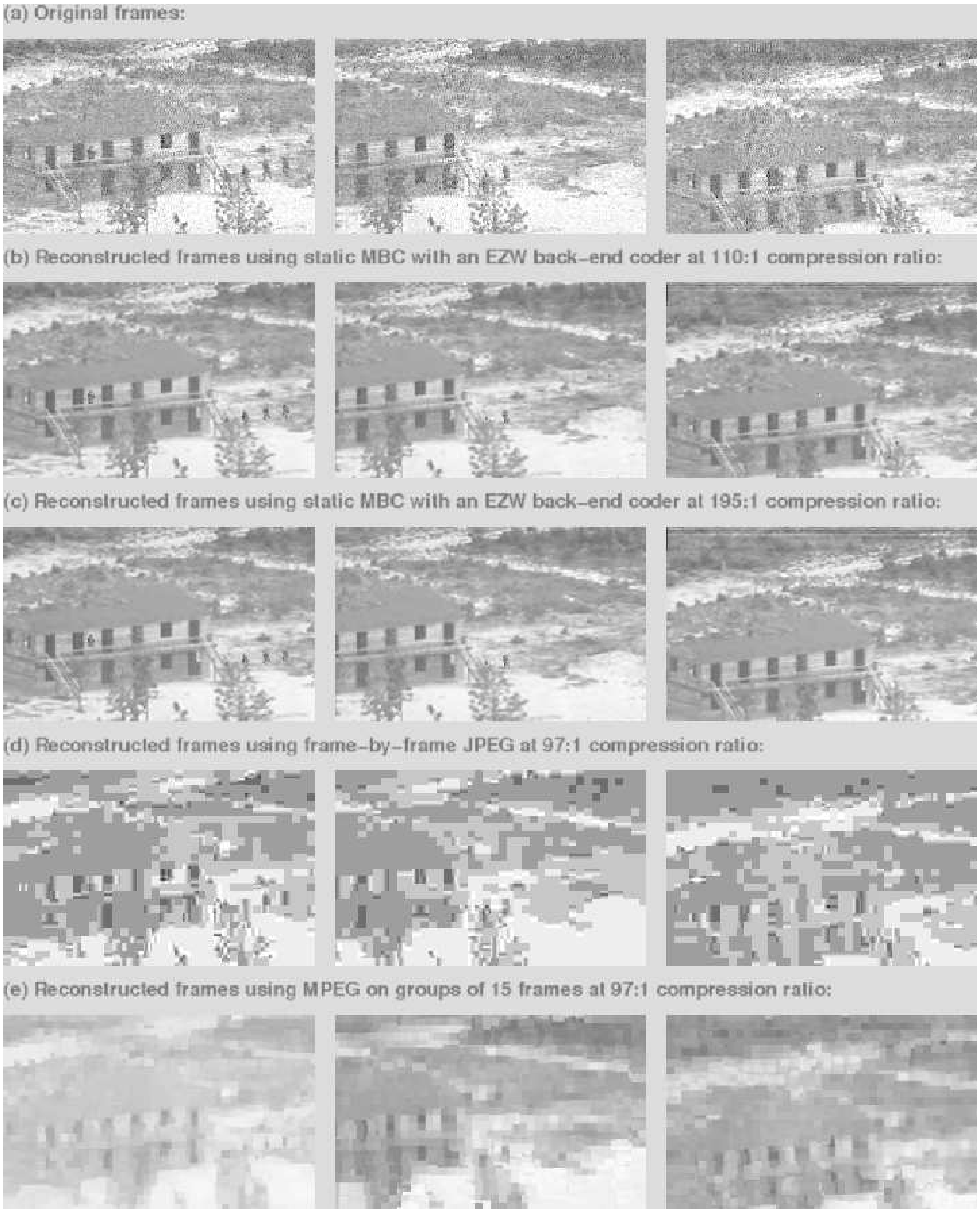

Figure 10: Static MBC compression of the 191–frame storage-house surveillanc sequence.
(a) Some representative frames of the sequence.
(b) The reconstructed frames using static MBC with an EZW back-end coder. An average compression ratio of 110 : 1 was computed for the *entire* sequence.
(c) The reconstructed frames MBC with an EZW back-end coder at an average compression ratio of 195 : 1.
(d) For Comparison: The reconstructed frames using JPEG applied to each individual frame at a compression ratio of 97 : 1.
(e) For Comparison: The reconstructed frames using interframe MPEG to subsequences of 15 frames (i.e., a new I-frame every 15 frames) at an average compression ratio of 97 : 1. Both JPEG and MPEG reconstructions are very blocky, and do not preserve edge information very well. In particular, note the soldiers approaching the house from the right.

Figure 11: Transmission compression: results of dynamic MBC vs. MPEG compression on a storage-house surveillance sequence.
(a) Some of the sequence frames (50 frames apart).
(b) The reconstructed frames using dynamic MBC at 32 kbits/sec.
(b) The reconstructed frames using dynamic MBC at 16 kbits/sec.
(d) For comparison: The reconstructed frames using MPEG at 32 kbits/sec.

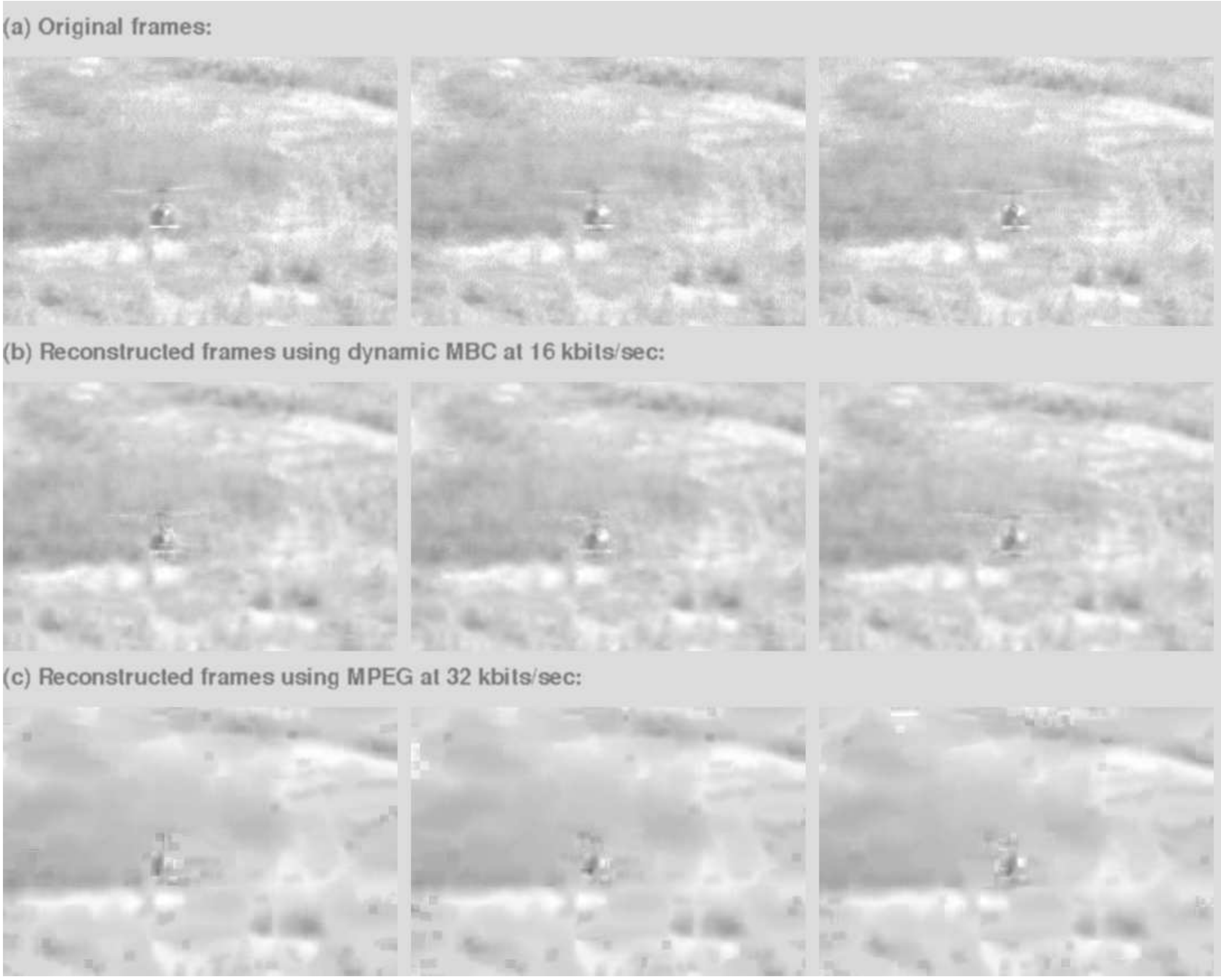

Figure 12: Transmission compression: results of dynamic MBC vs. MPEG compression on a chopper surveillance sequence.
(a) Some representative frames. The sequence was constructed of SIF525 size images, and temporally sampled by four (i.e., 7.5 frames/sec).
(b) The reconstructed frames after using dynamic MBC with a DCT back-end coder at an average bit rate of 16 kbits/sec.
(c) For comparison: The reconstructed frames after using MPEG compression of the sequence at *twice* the bit rate, i.e., 32 kbits/sec. Despite the higher bitrate, the reconstructed quality of MPEG is of significantly poorer quality than that of the dynamic MBC.

Figure 13: Transmission compression: results of dynamic MBC vs. MPEG compression of the table-tennis sequence.
(a) Some representative frames. The sequence was constructed of SIF525 size images, and temporally sampled by four (i.e., 7.5 frames/sec).
(b) The reconstructed frames after using dynamic MBC at 64 kbits/sec.
(c) For comparison: The reconstructed frames after using MPEG at 64 kbits/sec.