CLAIMS

1. A hologram image apparatus, comprising:

   a plurality of holographic panels, each holographic panel of the plurality of holographic panels comprising a transparent panel encoded with an interference pattern corresponding to a portion of a composite hologram image; and

   one or more light sources configured to emit light and to illuminate each holographic panel of the plurality of the holographic panels from one or more incident angles, wherein the interference pattern of each respective holographic panel causes the plurality of holographic panels to diffract the emitted light to produce the composite hologram image.

2. The hologram image apparatus of claim 1, wherein holographic panels of the plurality of holographic panels are arranged adjacent to one another such that respective depth of fields of the adjacent holographic panels overlap.

3. The hologram image apparatus of claim 1, wherein a depth of field of the composite hologram image corresponds to at least a number of holographic panels of the plurality of holographic panels.

4. The hologram image apparatus of claim 1, wherein at least one holographic panel of the plurality of holographic panels is configured as a multi-channel holographic panel.

5. The hologram image apparatus of claim 1, wherein the transparent panel of at least one holographic panel of the plurality of holographic panels comprises a glass panel that is transparent with respect to visible light.

6. The hologram image apparatus of claim 1, wherein the transparent panel of at least one holographic panel of the plurality of holographic panels is tinted to have about 90% to about 80% light transparency.

7. The hologram image apparatus of claim 1, wherein the transparent panel of at least one holographic panel of the plurality of holographic panels is tinted to have about 80% to about 70% light transparency.

8. The hologram image apparatus of claim 1, wherein the transparent panel of at least one holographic panel of the plurality of holographic panels is tinted to have about 70% to 60% light transparency.

9. The hologram image apparatus of claim 1, comprising one or more actuators operatively coupled to the plurality of holographic panels, wherein the one or more actuators are configured to be controlled by a controller to change arrangements and/or orientations of the plurality of holographic panels.

10. The hologram image apparatus of claim 1, comprising one or more actuators operatively coupled to the one or more light sources, wherein the one or more actuators are configured to be controlled by a controller to change the one or more incident angles.

11. A method of forming a composite hologram, comprising:

placing holographic panels adjacent to one another such that a gap exists between adjacent holographic panels, wherein the gap is such that respective depths of field of adjacent holographic panels overlap with one another, and wherein each of the holographic panels is encoded with an interference pattern corresponding to a portion of the composite hologram; and

illuminating the holographic panels from one or more incident angles using one or more light sources to produce the composite hologram.

12. The method of claim 11, comprising increasing a number of the holographic panels to increase a total depth of field of the composite hologram.

13. The method of claim 11, comprising coupling at least one of the holographic panels to one or more actuators operatively coupled to a controller to change the gap between adjacent holographic panels.

14. The method of claim 13, comprising changing a tilt angle of the at least one of the holographic panels and/or shift distances between adjacent holographic panels.

15. The method of claim 11, comprising coupling the one or more light sources to one or more actuators operatively coupled to a controller to change the one or more incident angles.