What is claimed is:

1. A double-sided lens sheet comprising a first side and a second side opposite the first side, wherein:

a first plurality of elongate lenses disposed substantially in parallel, at a first density, in a first direction on the first side; and

a second plurality of elongate lenses disposed substantially in parallel, at a second density, in a second direction different from said first direction, on the second side,

wherein the first and second plurality of elongate lenses are made of a light transmissive material and corresponding ones of the first and second plurality of elongate lenses have an offset relationship so that upon placing the lens sheet between an object and an observer, the object is concealed from the observer.

2. The double-sided lens sheet of claim 1, where each of the elongate lenses is a lenticule, a dove prism lens, a prism lens or a half dove prism lens.
3. The double-sided lens sheet of claim 1, further comprising a viewing region formed therein such that a target object behind one of the first and second sides can see through the viewing region while concealed from the observer viewing the opposite side.
4. The double-sided lens sheet of claim 1, further comprising a protective layer formed by coating or manufactured with protective elements to protect said elongate lenses against one or more of fog, water, fire, dirt, dust, scratches, heat, cold, and ultraviolet rays.
5. The double-sided lens sheet of claim 1, wherein the viewing region comprises one or more of holes, clear sections, perforations and a matrix of holes.
6. The double-sided lens sheet of claim 1, further comprising at least one camera mounted on the lens sheet, and a screen onto images from the camera are transmitted.
7. The double-sided lens sheet of claim 1, wherein the first direction is perpendicular to the second direction.
8. The double-sided lens sheet of claim 1, wherein the first density is different from the second density.
9. The double-sided lens sheet of claim 1, wherein at least one of the first side and the second side further comprises another third plurality of elongate lenses.

10. The double-sided lens sheet of claim 8, further comprising a third plurality of elongate lenses disposed substantially in parallel at a third density, in a third direction, on said first or second side wherein the third density is different from the second density.
11. The double-sided lens sheet of claim 1, wherein one or more of an antireflective layer, antireflective coating, film, mesh cover, textured surface and overlay is disposed on at least one of the sides of the lens sheet to reduce reflection or improve shadow reduction.
12. The double-sided lens sheet of claim 1, wherein the lens sheet is cylindrical in shape.
13. The double-sided lens sheet of claim 1, wherein the lens sheet is arch shaped.
14. A double-sided lens sheet comprising:

    a first side comprising a first plurality of elongate lenses; and

    a second side opposite the first side, the second side comprising a second plurality of elongate lenses;

    wherein the each of the first plurality of elongate lenses, and second plurality of elongate lenses are made of a light transmissive material and corresponding ones of the first and second plurality of elongate lenses have an offset relationship so that upon placing the lens sheet between an object and an observer, the object is concealed from the observer.
15. The double-sided lens sheet of claim 14, further comprising a viewing region formed therein such that the object behind one of the first and second sides can see through the viewing region while concealed from the observer viewing the opposite second or first side respectively.
16. The double-sided lens sheet of claim 14, where each of the elongate lenses is a lenticule, a dove prism lens, a prism lens or a half dove prism lens.
17. The double-sided lens sheet of claim 14, further comprising a mesh disposed on at least one of the first and second sides.
18. The double-sided lens sheet of claim 177, wherein the mesh is one of: black, white, chromatic color and clear in color.
19. The double-sided lens sheet of claim 14, wherein the first plurality of elongate lenses comprises elongate lenses at a first density and a second density different from the first density.
20. The double-sided lens sheet of claim19, wherein the second plurality of elongate lenses comprises elongate lenses at a third density and a fourth density different from the third density.
21. The double-sided lens sheet of claim 14, wherein the lens sheet is cylindrical in shape.
22. The double-sided lens sheet of claim 14, wherein the lens sheet is arch shaped.

23. The double-sided lens sheet of claim 222, further comprising support structures for the arch shaped lens sheet in the form of at least one of a solid shaped arch and a flexible rod.
24. The double-sided lens sheet of claim 14, wherein one or more of an antireflective layer, antireflective coating, film, mesh cover, textured surface and overlay is disposed on at least one of the sides of the lens sheet to reduce reflection or improve shadow reduction.
25. The double-sided lens sheet of claim 14, further comprising a protective layer formed by coating or manufactured with protective elements to protect said elongate lenses against one or more of fog, water, fire, dirt, dust, scratches, heat, cold, and ultraviolet rays.
26. A method of using of the double-sided lens sheet of claim 14, the method comprising:

placing the lens sheet between an object to be camouflaged and an observer, wherein light from the object undergoes, at least one of refraction and reflection such that the object is concealed from the observer.

27. A cylindrical lens sheet comprising:

an outer side and an inner side, said outer and inner sides having a plurality of elongate lenses disposed thereon, each of the plurality of elongate lenses made up of a light transmissive material;

said plurality of elongate lenses comprising:

a first plurality of elongate lenses disposed substantially in parallel, at a first density, in a first direction on the outer side; and

a second plurality of elongate lenses disposed substantially in parallel, at a second density, in a second direction different from said first direction, on the inner side;

wherein corresponding ones of the first and second plurality of elongate lenses have an offset relationship such that an object placed inside the cylindrical lens sheet is concealed from an observer outside the cylindrical lens sheet, as light rays incident on the outer side are reflected and/or refracted by the first and second plurality of elongate lenses to exit the inside of the cylindrical lens sheet without being incident on the object.

28. The cylindrical lens sheet of claim 277, where each of the elongate lenses is a lenticule, a dove prism lens, a prism lens or a half dove prism lens.
29. The cylindrical lens sheet of claim 277, further comprising a viewing region formed therein such that the object inside the lens sheet can see through the viewing region while concealed from the observer.

30. The cylindrical lens sheet of claim27, further comprising a second double-sided cylindrical lens sheet concentric with the cylindrical lens sheet.
31. The cylindrical lens sheet of claim 277 or claim 300, wherein one or more of an antireflective layer, antireflective coating, mesh cover, textured surface and overlay is disposed on at least one of the sides to reduce reflection or improve shadow reduction.
32. An arch shaped lens sheet comprising:

    an outer side and an inner side, at least one of said outer and inner sides having a plurality of elongate lenses disposed thereon, each of the plurality of elongate lenses made up of a light transmissive material;

    wherein an object placed underneath the arch shaped lens sheet is concealed from an observer outside the arch shaped lens sheet, as light rays incident on the outer side are reflected and/or refracted by at least one of said plurality of elongate lenses to exit the inside of the arch shaped lens sheet without being incident on the object.
33. The arch shaped lens sheet of claim 322, further comprising a plurality of support columns to support said arch shaped lens sheet on a ground surface, wherein said object is on said ground surface.
34. A lens sheet comprising:

    a first side comprising a first plurality of elongate lenses at a first density; and

    a second side, opposite the first side, comprising a second plurality of elongate lenses at a second density;

    each of the elongate lenses is made of a light transmissive material, wherein the lens sheet is one of flat, curved, stiff and flexible, and the lens sheet has a light ray convergence distance *d*.
35. The lens sheet of claim 344, where each of the elongate lenses is a lenticule, a dove prism lens, a prism lens or a half dove prism lens.
36. The lens sheet of claim 344, further comprising a viewing region formed therein such that a target object behind one of the first and second sides can see through the viewing region while concealed from an observer viewing the opposite side.
37. The lens sheet of claim 344, wherein one or more of an antireflective layer, antireflective coating, mesh cover, textured surface and overlay is disposed on at least one of the sides to reduce reflection or improve shadow reduction.

38. The lens sheet of claim 344, wherein at least some of the elongate lenses have a wavy shape to reduce reflections.
39. The lens sheet of claim 344, wherein the first and second densities, measured in lenses per inch (LPI), are the same.
40. The lens sheet of claim 344, wherein the first plurality of elongate lenses is offset from the second plurality of elongate lenses such that, upon placing the lens sheet between an object to be camouflaged and an observer, the observer views details of the background whereas the offset shifts the object and out of field of view of the observer.
41. The lens sheet of claim 344, wherein the first plurality of elongate lenses is offset from the second plurality of elongate lenses such that, upon placing the lens sheet between an object to be camouflaged against a background and an observer, the offset shifts a neutral section to hide the object and surrounding background behind the neutral section thereby hiding the object from view.
42. The lens sheet of claim 411, wherein the lens sheet is manufactured as a single piece having one or more neutral sections at predefined areas of the lens sheet for hiding the object behind.
43. A lens sheet assembly comprising:

    a first double-sided lens sheet comprising:

        a first side comprising a first plurality of elongate lenses at a first density; and

        a second side opposite the first side, comprising a second plurality of elongate lenses at a second density;

    a second double-sided lens sheet comprising:

        a third side comprising a third plurality of elongate lenses at a third density; and

        a fourth side opposite the third side, comprising a fourth plurality of elongate lenses at a fourth density.

    wherein each of the elongate lenses is made of a light transmissive material and wherein corresponding ones of the first and second, or the third and fourth respectively, plurality of elongate lenses, have an offset relationship so that an object placed one side of the lens sheet assembly is concealed from an observer on an opposite side of the lens sheet assembly.
44. The lens sheet assembly of claim 433, where each of the elongate lenses is a lenticule, a dove prism lens, a prism lens or a half dove prism lens.

45. The lens sheet assembly of claim 433, further comprising a viewing region formed therein such that a target object behind one of the first and second sides can see through the viewing region while concealed from an observer viewing the opposite side.
46. The lens sheet assembly of claim 433, wherein one or more of an antireflective layer, antireflective coating, film, mesh cover, textured surface and overlay is disposed on at least one of the sides to reduce reflection or improve shadow reduction.
47. The lens sheet assembly of claim 433, wherein the first, second, third and fourth densities, measured in lenses per inch (LPI), are at the same LPI and the elongate lenses have the same lens angle, that allows for offsetting the elongate lenses on opposite sides of one or both of the double-sided lens sheets to shift an image of an object and surrounding background of the object.
48. The lens sheet assembly of claim 437 wherein said shift causes said image to be out of the field of view of the observer, replacing said background with that of one or both sides beside the object.
49. The lens sheet assembly of claim 437 wherein the elongate lenses are disposed vertically and the object is shifted left or right.
50. The lens sheet assembly of claim 433 wherein offsetting one or both of the double-sided lens sheets causes a shift in a view the object target behind a neutral section thereby hiding it from view.
51. The lens sheet assembly of claim 433, wherein each of the first and second double-sided sheets is manufactured as one piece having a neutral section in a predetermined location.
52. A lens sheet assembly comprising:

a first single-sided lens sheet comprising:

a first side comprising a first plurality of elongate lenses at a first density; and

a second substantially flat side opposite the first side,

a second single-sided lens sheet comprising:

a third side comprising a second plurality of elongate lenses at a second density; and

a fourth substantially flat side opposite the third side,

wherein each of the elongate lenses is made of a light transmissive material and wherein an object placed one side of the lens sheet assembly is concealed from an observer on a second opposite side of the lens sheet assembly.

53. The lens sheet assembly of claim 522, where each of the elongate lenses is a lenticule, a dove prism lens, a prism lens or a half dove prism lens.
54. The lens sheet assembly of claim 522, further comprising a viewing region formed therein such that a target object behind one of the first and second sides can see through the viewing region while concealed from an observer viewing the opposite side.
55. The lens sheet assembly of claim 522, wherein one or more of an antireflective layer, antireflective coating, film, mesh cover, textured surface and overlay is disposed on at least one of the sides to reduce reflection or improve shadow reduction.
56. The lens sheet assembly of claim 522, wherein an offset or angle between said two single-sided lens sheets produces a resonance wave pattern, which distorts the object.
57. The lens sheet assembly of claim 522, wherein the first density is different from the second density measured in lenses per inch (LPI).

58. A method of using the lens sheet of claim 344, comprising:

placing the lens sheet between an object to be camouflaged and an observer.

59. The method of claim58, wherein the object is within said convergence distance of *d* from the sheet.
60. The method of claim59, wherein the first and second densities, measured in lenses per inch (LPI), are the same, and lens angle for said elongate lenses is the same, wherein said observer views details of a background of the object.
61. A method of using of a lens sheet comprising a plurality of elongate lenses, the method comprising:

placing the lens sheet between an object to be camouflaged and an observer;

wherein the object is in front of a background, and a range of electromagnetic radiation from the object undergoes one or both of refraction and reflection such that the object is concealed from the observer while at least a portion of the background is visible to the observer,

wherein the lens sheet comprises a first side and a second side opposite the first side, wherein:

a first plurality of elongate lenses disposed substantially in parallel, at a first density, in a first direction on the first side; and

a second plurality of elongate lenses disposed substantially in parallel, at a second density, in a second direction different from said first direction, on the second side, the first and second plurality of elongate lenses are made of a light transmissive material and corresponding ones of the first and second plurality of elongate lenses have an offset relationship.

62. The method of claim 61 wherein the range of electromagnetic radiation is one of: ultraviolet (UV), visible (VIS), near infrared (NIR), short wave infrared (SWIR), mid-wave infrared (MWIR) and long-wave infrared (LWIR).

63. A method of using one or more lens sheets for shadow reduction comprising:

placing the one or more lens sheets between a light source and a target, wherein light passing through the one or more sheets is refracted in numerous directions within a plane of the one or more sheets, thereby removing or reducing the visibility of the target and shadow from the target.

64. A method of using one or more lens sheets for shadow reduction comprising:

placing the one or more lens sheets behind a target with a light source in front of the target, each sheet having a plurality of lenses arranged in a plane, wherein light passing through said one or more lens sheets is refracted in numerous directions within said plane thereby reducing the visibility of a shadow from the target.

65. A method of using one or more lens sheets for shadow reduction of a target, comprising:

placing the one or more lens sheets adjacent to the target, each sheet having a plurality of lenses arranged in a plane, wherein light from a light source and passing through the one or more lens sheets is refracted in numerous directions within the plane of the one of more lens sheets, thereby removing or reducing the visibility of shadow from the target.

66. The method of any one of claims 633 to65, further comprising: providing at least some of the plurality of lenses with antireflective properties by way of one or more of antireflective layer, antireflective coating, film, mesh cover, textured surface and antireflective overlay to reduce reflections or improve shadow reduction.

67. A method of masking thermal signature from a target, from reaching a thermal detector, the method comprising:

placing a lenticular material between a viewer and the target, the lenticular material comprising at least one of glass and plexiglass, thereby removing or reducing the visibility of shadow from the target so that the thermal signature is prevented from being detected by the detector.

68. The method of claim 67, wherein said placing comprises enveloping the target with a blocking lenticular material.

69. The method of claim67, wherein the thermal signature is an electromagnetic radiation in the infrared range.

70. The method of claim67, further comprising regulating temperature of at least one of said plurality of elongate lenses by one or more of blowing warm air, blowing cold air, electrical heating and electrical cooling.

71. A method of manufacturing a lens sheet assembly, comprising:

providing a first single-sided lens sheet comprising: a first side comprising a first plurality of elongate lenses at a first density; and a second substantially flat side opposite the first side,

providing a second single-sided lens sheet comprising: a third side comprising a second plurality of elongate lenses at a second density; and a fourth substantially flat side opposite the third side.

adjusting an offset between the first and second plurality of elongate lenses to produce a resonance wave pattern when viewing said lens sheet assembly.

72. The method of claim 711, further comprising providing at least some of the plurality of elongate lenses with antireflective properties by way of one or more of antireflective layer, antireflective coating, film, mesh cover, textured surface and overlay to reduce reflections or improve shadow reduction.

73. A method of manufacturing a lens sheet assembly comprising:

providing a plurality of hollow tubes adjacent one another, each of said tubes shaped like an elongate lens; and

filling said plurality of hollow tubes with fluid.

74. The method of claim 733, further comprising: removing said tubes to form said assembly.

75. The method of claim 733, further comprising: individually regulating the temperature of fluid in each of said tubes.

76. The method of claim75, wherein said individually regulating said temperature of said fluid creates a decoy having a desired thermal signature to be observed by a thermal detector observing said lens sheet assembly.
77. The method of claim 733, wherein said fluid is water.