CLAIMS

I/we claim:

1. A method for use with a user having a pair of eyes, the method comprising:

successively generating, by at least one visual effects generator, a plurality of visual effects that are non-contextual with respect to content appearing in a central field of vision of at least one of the eyes and wherein the visual effects do not constitute a cursor, a user input field or other user input or control user interface element; and

presenting, via at least one optic, the generated visual effects at least in a respective ultra-far peripheral horizontal static field of at least one of each of two eyes of a user, the ultra-far peripheral horizontal static field of each eye which extends rearwardly from a fovea centralis that extends forwardly of a pupil of the respective eye in a straight ahead static gaze direction to at least 100 degrees or more rearwardly from the fovea centralis of the respective eye.

2. The method of claim 1 wherein successively generating a plurality of visual effects that are non-contextual with respect to content appearing in a central field of vision of at least one of the eyes includes successively generating a plurality of random visual effects.

3. The method of claim 1 wherein successively generating a plurality of visual effects that are non-contextual with respect to content appearing in a central field of vision of at least one of the eyes includes successively generating the plurality of visual effects based at least in part on a task to be performed by the user.

4. The method of claim 1, further comprising:

successively generating, by at least one image generator, a plurality of images; and

presenting, via the at least one optic, the generated images at least in a respective central field of vision of at least one of the eyes, with or without one or a combination of focusing or polarization.

5. The method of claim 4 wherein successively generating a plurality of visual effects that are non-contextual with respect to content appearing in a central field of vision of at least one of the eyes includes successively generating a plurality of visual effects that are independent of content appearing in a central field of vision of at least one of the eyes.

6. The method of claim 1 wherein presenting, via the at least one optic, the generated visual effects includes presenting the generated visual effects into the respective ultra-far peripheral horizontal static field and into a far peripheral horizontal static field of at least one of the eyes, the ultra-far peripheral horizontal static field which extends rearwardly from the fovea centralis that extends forwardly of the pupil of the respective eye in the straight ahead static gaze direction to 100 degrees or more rearwardly from the fovea centralis of the respective eye and the far peripheral horizontal static field which extends rearwardly from the fovea centralis that extends forwardly of the pupil of the respective eye in the straight ahead static gaze direction to 60 degrees or more rearwardly from the fovea centralis of the respective eye.

7. The method of claim 1 wherein presenting, via the at least one optic, the generated visual effects includes presenting the generated visual effects into the respective ultra-far peripheral horizontal static field and into a far peripheral horizontal static field of at least one of the eyes, the respective ultra-far peripheral horizontal static field which extends rearwardly from the fovea centralis that extends forwardly of the pupil of the respective eye in the straight ahead static gaze direction to 110 degrees or more rearwardly from the fovea centralis of the respective eye and the far peripheral horizontal static field which extends rearwardly from the fovea centralis that extends forwardly of the pupil of the respective eye in the straight ahead static gaze direction to 60 degrees or more rearwardly from the fovea centralis of the respective eye.

8. The method of claim 1 wherein presenting, via the at least one optic, the generated visual effects into a respective ultra-far peripheral horizontal static field of at least one of the eyes includes presenting the generated visual effects into a respective ultra-far peripheral horizontal static field of at least one of the eyes which respective ultra-far peripheral horizontal static field extends rearwardly from the fovea centralis that extends forwardly of the pupil of the respective eye in the straight ahead static gaze direction to 110 degrees or more rearwardly from the fovea centralis of the respective eye.

9. The method of any one of claims 1 through 8, further comprising:

providing a view of a real world environment in a foveal vision field of the user without the aid of any image generator or display.

10. The method of any one of claims 1 through 8, further comprising:

generating, by at least one image generator, a number of images; and

providing, via the at least one optic, the number of images in a foveal vision field of the user.

11. The method of any one of claim 10, further comprising:

sensing, by at least one sensor, to sense at least one physical trait of the user of the device, the at least one physical trait including any one or more of: acuity, focus, blink rate, gaze or eye tracking, myopia, convergence, sustainability, visual processing, visual field, retinal health, brain field health, visual discrimination, visual spatial memory, ocular motility, pursuits and saccades, hold fixation, convergence/divergence, eye alignment, depth perception, phorias, and occipital cortex; and

adjusting the generation of the images based on the physical characteristics sensed by the at least one sensor.

12. The method of claim 11, further comprising:

adjusting an angle at which the images are presented into the respective peripheral field of vision of at least one of two eyes of the user of the device.

13. The method of any one of claims 1 through 12 wherein presenting, via the at least one optic, the generated visual effects into a respective ultra-far peripheral horizontal static field of at least one of the eyes includes presenting visually-inconspicuously the generated visual effects into a respective ultra-far peripheral horizontal static field of at least one of the eyes such that the visual effects are not processed by a primary visual cortex.

14. The method of any one of claims 1 through 12 wherein successively generating, by at least one visual effects generator, a plurality of visual effects that are non-contextual with respect to content appearing in a central field of vision of at least one of the eyes includes successively generating the visual effects in an IR range of an electromagnetic spectrum.

15. A device for use with a user having a pair of eyes, the device comprising:

at least one visual effects generator operable to successively generate a plurality of visual effects that are non-contextual with respect to content appearing in a central field of vision of at least one of the eyes and wherein the visual effects do not constitute a cursor, a user input field or other user input or control user interface element; and

at least one optic optically coupled to the at least one visual effects generator and positioned and oriented to present the generated visual effects at least in a respective ultra-far peripheral horizontal static field of at least one of each of two eyes field health, visual discrimination, visual spatial memory, ocular motility, pursuits and saccades of a user of the device, the ultra-far peripheral horizontal static field of each eye which extends rearwardly from a fovea centralis that extends forwardly of a pupil of the respective eye in a straight ahead static gaze direction to at least 100 degrees or more rearwardly from the fovea centralis of the respective eye.

16. The device of claim 15 wherein the at least one visual effects generator is operable to successively generate a plurality of random visual effects.

17. The device of claim 15 wherein the at least one visual effects generator is operable to successively generate the plurality of visual effects based at least in part on a task to be performed by the user.

18. The device of claim 15 wherein the at least one visual effects generator is operable to successively generate a plurality of images and the at least one optic is optically coupled to the at least one visual effects generator and positioned and oriented to present the generated images at least in a respective central field of vision of at least one of the eyes.

19. The device of claim 15 wherein the at least one optic is positioned and oriented to present the generated visual effects into a respective ultra-far peripheral horizontal static field and into a far peripheral horizontal static field of at least one of the eyes which respective ultra-far peripheral horizontal static field extends rearwardly from the fovea centralis that extends forwardly of the pupil of the respective eye in the straight ahead static gaze direction to 100 degrees or more rearwardly from the fovea centralis of the respective eye and which respective far peripheral horizontal static field extends rearwardly from the fovea centralis that extends forwardly of the pupil of the respective eye in the straight ahead static gaze direction to 60 degrees or more rearwardly from the fovea centralis of the respective eye.

20. The device of claim 15 wherein the at least one optic is positioned and oriented to present the generated visual effects into a respective ultra-far peripheral horizontal static field and into a far peripheral horizontal static field of at least one of the eyes which respective ultra-far peripheral horizontal static field extends rearwardly from the fovea centralis that extends forwardly of the pupil of the respective eye in the straight ahead static gaze direction to 110 degrees or more rearwardly from the fovea centralis of the respective eye and which far peripheral horizontal static field extends rearwardly from the fovea centralis that extends forwardly of the pupil of the respective eye in the straight ahead static gaze direction to 60 degrees or more rearwardly from the fovea centralis of the respective eye.

21. The device of claim 15 wherein the at least one optic is positioned and oriented to present the generated visual effects into a respective ultra-far peripheral horizontal static field of at least one of the eyes which respective peripheral horizontal static field extends rearwardly from the fovea centralis that extends forwardly of the pupil of the respective eye in the straight ahead static gaze direction to 110 degrees or more rearwardly from the fovea centralis of the respective eye.

22. The device of claim 15 wherein the device is a head worn device, and further comprising:

a front eyeglasses frame;

a first arm that extends rearwardly from a first side of the front eyeglass frame; and

a second arm that extends rearwardly from a second side of the front eyeglass frame.

23. The device of claim 22 wherein at least a portion of the first arm is transparent and positioned to a side of a first one of the two eyes when the head worn device is worn and at least a portion of the second arm is transparent positioned to a side of a second one of the two eyes when the head worn device is worn.

24. The device of any one of claims 15 through 23 wherein the device provides a view of a real world environment in a foveal vision field of the user of the device without the aid of any image generator or display or wherein the at least one optic is optically coupled to at least one image generator to provide a number of images in a foveal vision field of the user of the device.

25. The device of any one of claims 15 through 23, further comprising:

at least one sensor operable to sense at least one physical trait of the user of the device, the at least one physical trait including any one or more of: acuity, focus, blink rate, gaze or eye tracking, myopia, convergence, sustainability, visual processing, visual field, retinal health, brain field health, visual discrimination, visual spatial memory,

ocular motility, pursuits and saccades, hold fixation, convergence/divergence, eye alignment, depth perception, phorias, and occipital cortex; and

at least one processor-based system communicatively coupleable to the at least one sensor and operable to adjust the generation of the images based on the physical characteristics sensed by the at least one sensor.

26. The device of claim 25 wherein the at least one processor-based system is operable to adjust an angle at which the images are presented into the respective peripheral field of vision of at least one of two eyes of the user of the device.

27. The device of any one of claims 15 through 23 wherein the at least one optic is positioned and oriented to visually-inconspicuously present the generated visual effects into a respective ultra-far peripheral horizontal static field of at least one of the eyes such that the visual effects are not processed by a primary visual cortex.