

Claims

What is Claimed Is:

1. A floating territory (10) comprising a flexible structure (20) and a superstructure (12), the flexible structure (20) being configured to float on water (100), the superstructure (12) being optionally a rigid superstructure (12), the superstructure (12) supported directly or indirectly in the horizontal plane by buoys (210) of the flexible structure (20) guided to move along a substantially vertical axis by at least one vertical column (230, 312, 314), the buoys adapted to float in water, optionally floating on the respective crest of waves on the water, the superstructure (12) comprising a bottom substantially flat surface (300), a top substantially flat surface (500) affixed together by a lightweight structure (400), the lightweight structure (400) being between the bottom substantially flat surface (300) and the top substantially flat surface (500), the bottom substantially flat surface (300) providing sufficient support to transmit lifting forces from the flexible structure (20) to the superstructure (12).
2. The floating territory (10) of claim 1, in combination with an electric generation system (322) to power dynamos or induction coils which use the motion of the buoys to generate electricity from wave motion.
3. The floating territory (10) of the above claim, wherein the electric generation system (322) comprises one of the group of components consisting of power dynamos, induction coils, and pull generators.
4. The floating territory (10) of any one of the above claims, wherein the superstructure (12) comprises one or more installations (900) for human or other activities, the installations (900) being located on top of the flat surface (500) and/or below the flat surface (500).

5. The floating territory of any one of the above claims, wherein the superstructure (12) comprises one or more agriculture surfaces such as earthen fields on which edible plants are cultivated.
6. The floating territory (10) of the above claim, wherein the agriculture surfaces are configured to provide access to the surface of the water (100).
7. The floating territory (10) of any one of the above claims, wherein the buoys (210) optionally being shaped as a prism and being made of a material selected from one of a list of materials consisting of bamboo poles, metal, recycled material, material recuperated out of the water, and any combination of the aforementioned materials.
8. The floating territory (10) of claim 7, wherein the buoys (210) are prism-shaped and their base has a shape being a regular polygon, a circle, a triangle, a square, a pentagon, or a hexagon.
9. The floating territory (10) of claim 7, wherein at least one buoy (210) has a dove-tail interface (211), the adjacent buoy comprising grooves for sliding attachment of the dove tails to neighboring buoys (210), the so attached buoys (210) are configured to slide vertically relative to each other allowing the flexible structure (20) to follow the upward and downward movement of waves of the water (100).
10. The floating territory of any one of claims 7 or 9, further having a plurality of the buoys (210) comprising at least one mast (230), the bottom surface (300) of the superstructure (12) comprising at least one guiding hole (310), the at least one mast (230) adapted to slidably engage in the guiding hole (310) and being configured to ensure controlled vertical movement and to prevent horizontal displacement of the flexible structure (20) with respect to the rigid superstructure (10).

11. The floating territory of any one of claims 7 or 9, wherein at least one buoy (210) comprises a guiding hole (232), the bottom surface (300) of the superstructure (12) comprises at least one mast (312) slideably engaging the guiding hole (232) and being configured to ensure controlled verticle movement and to prevent horizontal displacement of the flexible structure (20) with respect to the rigid superstructure (12).
12. The floating territory (10) of claims 10 or 11, wherein an energy generation system (322) is connected to the buoy (210) so as to generate energy from the up and down motion of the buoy.
13. The floating territory (10) of claims 12, wherein the energy powers one or more installations (900) of the floating territory (10), the energy being electrical and/or mechanical energy.
14. The floating territory (10) of any one of claims 1 or 13, wherein the bottom surface (300) is made of a material selected from one of the group of materials consisting of bamboo poles, metal, recycled material, material recuperated out of the water, and any combination of the aforementioned materials.
15. The floating territory (10) of any one of claims 1 or 13, wherein the top surface (500) is made of a material selected from one of the group of materials consisting of bamboo poles, metal, recycled material, material recuperated out of the water, and any combination of the aforementioned materials.
16. The floating territory (10) of any one of claims 1 or 13, wherein the lightweight structure (400) is made of a material selected from one of the group of materials consisting of bamboo poles, metal, recycled material, material recuperated out of the water, and any combination of the aforementioned materials.

17. The floating territory (10) of any of the preceding claims, wherein the top surface (500) has a substantially continuous floor suitable for the installation of facilities and/or infrastructure for humans or other activities.
18. The floating territory (10) of any one of the preceding claims, wherein one or more ballast weights (220) are structurally affixed to at least one of the one or more buoy (210), the ballast weights (220) being configured to ensure a substantially vertical orientation of the buoy (210), the one or more ballast weights (220) being structurally affixed to the at least one of the one or more buoys (210) below and/or inside said buoy (210).
19. The floating territory (10) of claim 18, wherein one or more of the one or more ballast weights (220) being shaped so as to function as rudders to maneuver the floating territory.
20. The floating territory (10) of any one of claims 1 or 19, wherein the floating territory is mobilized by motors (555) placed in or below the buoys (210).
21. The floating territory of any one of claims 1 or 19, wherein the floating territory (10) is mobilized by motors (667) directly attached to the superstructure (20).
22. The floating territory (10) of claim 20 or 21, wherein the motors (555, 667) are used to propel the floating territory (10) so as to compensate for the marine streams and/or winds and ensure a substantially permanent geolocalization of the floating territory (10), using GPS or similar localization systems as reference.
23. The floating territory (10) of the above claim, wherein a GPS system (669) provides inputs to a propulsion system (555, 667) which controls the location of the floating territory.
24. The floating territory (10) of any one of the preceding claims, wherein the floating territory comprises weights (600) and supports (650), the weights (600) being attached to

the superstructure (12) via the supports (650), the weights (600) being placed at sufficient depth so as not to be subject to currents or marine streams in order to stabilize the position of the floating territory (10).

25. The floating territory (10) of any one of the preceding claims, wherein the floating territory (10) comprises pillars (750), the pillars (750) being attached to the superstructure (12) so as to provide limited horizontal freedom of movement and substantial vertical freedom of movement, the vertical freedom of movement enabling the superstructure (12) to follow waves and tides, wherein the pillars (750) are anchored in the ground (700) or essentially neutrally buoyant so that anchoring to the ground is not necessary.
26. The floating territory (10) of claim 25, wherein an energy generation system (322) is connected to the pillars (750) and the superstructure (12) so as to harvest energy from the relative movement between at least one pillar (750) and the superstructure (12).
27. The floating territory (10) of claims 26, wherein the energy is powering one or more installations (900) of the floating territory (10), the energy being electrical and/or mechanical energy.
28. The floating territory (10) of any one of the preceding claims, wherein the superstructure (12) is made of modular sections (320) that connect to at least one other modular section (320), the modular sections (320) being configured to be disassemblable from one or all of its neighboring modular sections (320) to allow maintenance of the floating structure (20).
29. The floating territory (10) of claims 28, wherein one modular section (320) or a group of modular sections (320) are positioned so as to be aligned with one buoy (210) or a group of buoys (210), thereby allowing free access to the buoy (210) when the modular section (320) is disassembled and removed.