CLAIMS

1. A first modular shelter (50) comprising:
   - a first curved wall (52) that further comprises a first shell (122) and a second shell (124),
   - wherein the first shell (122) comprises a first curved base wall (142) and a first sidewall (144), the first sidewall (144) extending from a first shell edge (145) of the first curved base wall (42) for supporting the first curved base wall (142), and
   - the second shell (124) comprises a second curved base wall (160) and a second sidewall (162), the second sidewall (162) extending from a second shell edge (151) of the second curved base wall (160) for supporting the second curved base wall (162);
   - wherein the first sidewall (144) has a first corrugated region and the second side wall (162) has a second corrugated region which matches the first corrugated region; and wherein the mating of the first corrugated region with the second corrugated region forms ~~face each other and are united together in forming~~ a rib (235) for connecting the first shell (122) to the second shell (124) and for increasing friction between the first shell (122) and the second shell (124)~~for supporting the first curved wall (52)~~.

2. The first modular shelter (50) of claim 1, wherein
the first sidewall (144) and the first curved base wall (142) form a first pocket (147) for receiving the second shell (124).

3. The first modular shelter (50) of claim 1 or 2, wherein
the first shell (122) and the second shell (124) have similar shapes such that the second shell (124) is receivable by the first pocket (147) for stacking.

~~4. The first modular shelter (50) of any of the preceding claims, wherein the first sidewall (144) has a first corrugated region (144).~~

~~5. The first modular shelter (50) of any of the preceding claims, wherein the second sidewall (162) has a second corrugated region (162) for matching with the first corrugated region (144).~~

~~6.~~4. The first modular shelter (50) of any of the preceding claims, wherein

the first sidewall (144) comprises a gutter (150) and the second sidewall (162) comprises a tongue (164) for inserting into the gutter (150).

~~7. The first modular shelter (50) of claim 6, wherein~~
~~the second sidewall (162) comprises a second tongue (164) for inserting into the gutter (150).~~

~~8.~~5. The first modular shelter (50) of any of the preceding claims, wherein
the first curved base wall (142) comprises a two-directional curvature.

~~9.~~6. The first modular shelter (50) of any of the preceding claims, wherein
the first curved base wall (142) comprises a hyperbolic paraboloid curvature.

~~10.~~7. The first modular shelter (50) of any of the preceding claims, wherein
the first shell (122) further comprises a first extension wall (138, 140) that extends from another edge (149) of the first shell (122) for joining the first shell (122) to another shell (143).

~~11.~~8. The first modular shelter (50) of ~~any of the preceding claims~~ claim 7, wherein
the first extension wall (138, 140) comprises a corrugated region (140).

~~12.~~9. The first modular shelter (50) of claim ~~7~~10 or ~~8~~11, wherein
the first sidewall (144), the first curved base wall (142) and the first extension wall (138, 140) form the first pocket (147) for receiving the second shell (124).

~~13.~~10. The first modular shelter (50) of claim ~~12~~9, wherein
the first extension wall (138, 140, 174, 192) is substantially perpendicular to the first curved base wall (142, 160, 176, 194) for resting on a base plate (60).

~~14.~~11. The first modular shelter (50) of any of the preceding claims, wherein
the first curved wall (52) further comprises a centre joint (82, 84, 86, 88) for joining the first shell (122) and the second shell (124) together.

~~15.~~12. The first modular shelter (50) of any of the preceding claims, wherein

the first curved wall (52) further comprises a wall frame (74, 76, 78, 80) that is connected to the first shell (22) and the second shell (124) ~~for supporting~~.

~~16.~~13. The first modular shelter (50) of any of the preceding claims further comprising a second curved wall (54, 56, 58) that is similar to the first curved wall (52).

~~17.~~14. The first modular shelter (50) of claim 13~~16~~, wherein another gutter (243) on the second curved wall (58) is connected to the gutter (50) of the first curved wall (52) for drainage.

~~18.~~15. The first modular shelter (50) of claim 14~~17~~ further comprising a conduit (243) that connects the gutter (150) of the first curved wall (52) to the other gutter of the top curved wall (58) for preventing water from entering an interior (61) of the first modular shelter (50).

~~19.~~16. The first modular shelter (50) of claim 12~~15~~, wherein the wall frame (74, 76, 78, 80) comprises a corner joint (90, 92, 94, 96, 98, 100, 102, 104) for connecting corners (89) of neighboring curved walls (52, 54, 56, 58).

~~20.~~17. The first modular shelter (50) of any of the preceding claims further comprising a third curved wall (56) and a fourth curved wall (58) that are connected to the first curved wall (52) and to the second curved wall (54) for forming an enclosure (61).

~~21.~~18. The first modular shelter (50) of any of the preceding claims further comprising a base plate (60) that is connected and secured to the first curved wall (52) ~~for securing the first curved wall (52) to the base plate (60)~~.

~~22.~~19. The first modular shelter (50) of claim 18~~21~~, wherein the base plate (60) further comprises a channel that is connected to at least one of the gutters (148, 150, 186, 188, 243) for draining water away from the first modular shelter (50).

~~23.~~20. The first modular shelter (50) of ~~any of the preceding claims~~ claim 17 comprising

a door that is movably connected to one of the curved walls (52, 54, 56, 58) or the base plate (60) for providing an entrance (59) to the enclosure (61).

~~24.~~21. The first modular shelter (50) of any of the preceding claims further comprising a pillar (418, 420, 422, 424, 426, 428) that is connected to the first curved wall (52) for elevating the first modular shelter (50) off the ground.

~~25.~~22. The first modular shelter (50) of claim 21~~24~~, wherein the pillar (418, 420, 422, 424, 426, 428) comprises a shell (418, 420, 422, 424, 426, 428).

~~26.~~23. The first modular shelter (50) of claim 22~~25~~, wherein the shell (418, 420, 422, 424, 426, 428) is stackable.

~~27.~~24. The first modular shelter (50) of any of the preceding claims, wherein the first shell (122) comprises a biodegradable material.

~~28.~~25. The first modular shelter (50) of claim ~~27~~24, wherein the biodegradable material comprises a biodegradable plastic material.

~~29.~~26. The first modular shelter (50) of claim 25~~28~~, wherein the biodegradable plastic material comprises poly lactic acid (PLA).

~~30.~~27. The first modular shelter (50) of any of the preceding claims, wherein the first curved wall (52) further comprises an opening (362) for providing a window (362) of the first modular shelter (50, 350).

~~31.~~28. The first modular shelter (50) of claim 27~~30~~, wherein the opening (362) is provided at the first extension wall (140) for ventilation.

~~32.~~29. The first modular shelter (50) of any of the preceding claims further comprising a fastener (245) for joining first sidewall (144) and the second sidewall (162) in forming the rib (235).

~~33.~~30. The first modular shelter (50) of any of the preceding claims, wherein the first shell (122) comprises a thermal insulation material.

~~34.~~31. The first modular shelter (50) of any of the preceding claims, wherein the first shell (122) comprises a waterproof material.

~~35.~~32. The first modular shelter (50) of any of the preceding claims, wherein at least a portion of the first shell (22) is opaque or semitransparent.

~~36.~~33. The first modular shelter (50) of claim 17~~20~~, wherein

- the first curved wall (52), the second curved wall (54) and the third curved wall (56) are connected for forming lateral sides of the first modular shelter (50),
- the fourth curved sidewall (58) resides on tops of the other three curved walls (52, 54, 56) for providing a roof (58), and
- the base plate (60) is further provided at bottoms of the first curved wall (52), the second curved wall (54) and the third curved wall (56) at an opposite side of the fourth curved wall (58) for forming the enclosure (61) with an opening side (59).

~~37.~~34. The first modular shelter (50) of claim 33~~36~~, wherein the shells (122, 124, 126, 128, 30, 30, 134, 136) of at least one of the curved wall (52, 54, 56, 58) are connected together by the centre joint (82, 84, 86, 88), and at least two of the shells (122, 124, 126, 128, 130, 130, 134, 136) are joined together by the wall frame (74, 76, 78, 80).

~~38.~~35. An extended modular shelter (390, 404) comprising: the first modular shelter (50) of any of the preceding claims that is connected to another modular shelter (50, 350, 352, 356, 366, 390, 404, 430).

~~39.~~36. The extended modular shelter (390, 404) of claim 35~~36~~, wherein the other modular shelter (50, 350, 352, 356, 366, 390, 404, 430) is connected to a roof (58) of the first modular shelter (50).

~~40.~~37. A kit of parts for constructing the first modular shelter (50) according to any of the preceding claims, the kit of parts comprising:

a first shell (122) for providing a first curved wall (52) of the first modular shelter (50), wherein the first shell (122) comprises a first curved base wall (142) and a first sidewall (144) for facing and connecting to another side wall (162) of a similar shell (124) in forming a rib (235), the first sidewall (144) extending from a first shell edge (145) of the first curved, base wall (142) ~~for supporting the first curved base wall (142)~~.

~~41.~~38. Method for making a first modular shelter (50) comprising:

- providing a mould (250) and a sheet material (321);~~,~~
- vacuum forming the sheet material (321) on the mould (250) for providing a shell (122, 124), the first shell (122) comprising a first curved base wall (142) and a first sidewall (144) and the first sidewall (144) extending from a first shell edge (145) of the first curved base wall (142), the second shell (124) comprising a second curved base wall (160) and a second sidewall (162), the second sidewall (162) extending from a second shell edge (151) of the second curved base wall (160) for supporting the second curved base wall (162); and
- ~~—~~forming corrugations on the first sidewall (144), forming corrugations on the second sidewall (162) which matches the corrugations on the first sidewall (144), such that in operation, the mating of the corrugations of the first sidewall (144) and the corrugations of the second sidewall (162) forms a rib (235) for connecting the first shell (122) to the second shell (124) and for increasing friction between the first shell (122) and the second shell (124).

~~42.~~39. Method of claim 38~~41~~ further comprising

bending a portion (148, 150) of the first shell in forming a gutter (148, 150, 243).

~~43.~~40. Method of claim 38~~41~~ or 39~~42~~ further comprising

forming another portion (162) of ~~another~~ the second shell (124) in from a tongue (166) for inserting into the gutter (148).

~~44.~~41. Method of any of the claims 38~~41~~ to 40~~43~~ further comprising
forming a first extension wall (138, 140) that extends from a further edge (149) of the first shell (122).

~~45.~~42. Method for storing or transporting the first modular shelter (50) of any of ~~the preceding~~ claims 1 to 36, comprising
stacking the first shell (122) and the second shell (124).

~~46.~~43. Method for assembling the modular shelter (50) of any of ~~the preceding~~ claims 11 to 36 comprising
joining the first shell (122) and the second shell (124) together by the first centre joint (82).

~~47.~~44. Method for disassembling the modular shelter (50) of any of ~~the preceding~~ claims 1 to 36 comprising
disconnecting the first shell (122) and the second shell (124).

~~48.~~45. Method for using the modular shelter (50) of any of ~~the preceding~~ claims 1 to 36 comprising
recycling ~~at least~~ at least one of the shells (122, 124, 126, 126, 128, 130, 132, 134, 136).

~~49.~~46. Method for discarding the first modular shelter (50) of claim 24~~27~~ comprising
disposing the shells (122, 124, 126, 126, 128, 130, 132, 134, 136) into an environment for biodegradation.

~~50.~~47. Device (250, 264, 274, 288) for making the shell (122, 124, 126, 128, 130, 132, 134, 136) of the modular shelter (50) of any of ~~the preceding~~ claims 1 to 36~~40~~ comprising:
a mould (250, 264, 274, 288) for deforming a sheet material (321) to form the first curved base wall (142).