CLAIMS

1. A furniture assembly system, comprising:

- a plurality of ~~eross~~ panels, wherein each ~~eross~~ panel comprises a plurality of engaging apertures of a right-angle cross shape arranged in one or more rows and one or more columns, with each engaging aperture being separated from an adjacent engaging aperture at a predetermined distance,

- at least one top panel comprising a plurality of lock-down apertures,

- at least one support member, wherein the or each support member comprises at least a first interaction edge and a second interaction edge connectable to the ~~eross~~ panel, and a third interaction edge connectable to the top panel, the first interaction edge and the second interaction edge being substantially perpendicular to the third interaction edge, and

wherein each of the first interaction edge and the second interaction edge comprises at least one hook joint shaped and sized to be insertable into the engaging aperture of the ~~eross~~ panel and to extend beyond the ~~eross~~ panel forming a cantilevered projection, the third interaction edge comprises one or more protruding portions shaped and sized to fit in the plurality of lock-down apertures of the top panel.

2. A furniture assembly system according to claim 1, further comprising a plurality of locking members, the locking member is shaped and sized to fit into the engaging aperture to secure the support member on the ~~eross~~ panel.

3. The furniture assembly system according to claim 1 or 2, wherein the ~~eross~~ panel further comprises a plurality of auxiliary apertures for receiving an attachment means.

4. The furniture assembly system according to any one of the preceding claims, further comprising one or more accessories attachable to the ~~eross~~ panel and/or top panel.

5. The furniture assembly system according to any one of the preceding claims, wherein the top panel is configured to weave in a flexible material to form a support surface.

6. The furniture assembly system according to any one of the preceding claims, wherein the ~~the~~ first interaction edge and the second interaction edge of the or each support member comprises two or more said hook joints configured to be coupled to into two or more said engaging apertures on the ~~eross~~ panel.

7. The furniture assembly system according to any one of the preceding claims, wherein components of the furniture assembly system are customizable by an end-user.

8. An assembled furniture piece made from components of a furniture assembly system, comprising:

- a first ~~cross~~ panel and a second ~~cross~~ panel forming two opposing side surfaces of the furniture piece, wherein each panel comprises a plurality of engaging apertures of a right-angle cross shape arranged in one or more rows and one or more columns, with each engaging aperture being separated from an adjacent engaging aperture at a predetermined distance,

- a first support member and a second support member perpendicularly disposed with respect to the first ~~cross~~ panel and/or the second ~~cross~~ panel, each of the first support member and the second support member being connected to the first ~~cross~~ panel along a first interaction edge and being connected to the second ~~cross~~ panel along a second interaction edge, and

- a top panel forming a top surface of the furniture piece, the top panel being connected to the first support member along a third interaction edge of the first support member and connected to the second support member along a third interaction edge of the second support member.

9. The assembled furniture piece of claim 8, further comprising a plurality of locking members, each locking member being coupled to an engaging aperture where ~~a~~ the hook joint on the first or the second interaction edge of the support member is inserted so as to secure the support member on the ~~cross~~ panel.

10. The assembled furniture piece of claim 8 or 9, further comprises one or more accessories attached to the ~~cross~~ panel.

11. The assembled furniture piece of any one of claims 8 to 10, wherein a flexible material is woven into the top panel to form a support surface.

12. The assembled furniture piece of any one of claims 8 to 11, wherein components of the assembled furniture piece are customizable by an end-user.

~~13. A method of assembling a furniture piece using a furniture assembly system, comprising the steps of:~~

~~- connecting by hand a first support member to a first cross panel, wherein one or more hook joints on a first interaction edge of the first support member are inserted into one or~~

~~more corresponding engaging apertures of the first cross panel and are set to extend beyond the first cross panel to form a cantilevered projection,~~

~~connecting by hand a second support member to the first cross panel, wherein one or more hook joints on a first interaction edge of the second support member are inserted into one or more corresponding engaging apertures of the first cross panel and are set to extend beyond the first cross panel to form a cantilevered projection,~~

~~connecting by hand the first support member to a second cross panel, wherein one or more hook joints on a second interaction edge of the first support member are inserted into one or more corresponding engaging apertures of the second cross panel and are set to extend beyond the second cross panel to form a cantilevered projection,~~

~~connecting by hand the second support member to the second cross panel, wherein one or more hook joints on a second interaction edge of the second support member are inserted into one or more corresponding engaging apertures of the second cross panel and are set to extend beyond the second cross panel to form a cantilevered projection, and~~

~~connecting by hand a top panel to the first support member and the second support member, wherein one or more protruding portions on a third interaction edge of the first support member and of the second support member are fit into one or more corresponding lock-down apertures of the top panel.~~

~~14. A method according to claim 13, further comprising~~

~~securing the first support member and the second support member on the first cross panel and the second cross panel using a plurality of locking members, wherein each locking member is fitted into an engaging aperture where a hook joint is inserted.~~

~~15. The method according to claim 13 or 14, further comprising a step of weaving a flexible material is into the top panel to form a support surface.~~

~~16. The method according to any one of claims 13 to 15, further comprising a step of attaching one or more accessories to the cross panel.~~

~~17~~13. A ~~cross~~ panel of a furniture assembly system, comprising:

a plurality of engaging apertures of a right-angle cross shape arranged in one or more rows and one or more columns, and each engaging aperture is separated from an adjacent engaging aperture at a predetermined distance,

wherein the ~~cross~~ panel is configured to connect to a support member, the support member comprising a first interaction edge and a second interaction edge connectable to the

~~cross~~ panel, and ~~a third interaction edge connectable to a top panel, the first interaction edge and the second interaction edge being substantially perpendicular to the third interaction edge, and~~

wherein each of the first interaction edge and the second interaction edge comprises at least one hook joint shaped and sized to be insertable into the engaging aperture of the ~~cross~~ panel and to extend beyond the cross panel forming a cantilevered projection.~~, the third interaction edge comprises one or more protruding portions shaped and sized to fit in a plurality of lock-down apertures of the top panel.~~