THE CLAIMS:

1. An abutment comprising a first ~~foundation~~ module and at least one successive ~~foundation~~ module,

with the first ~~foundation~~ module comprising:

a plurality of formwork members that define a pair of side walls such that the side walls define a space between the side walls;

a brace that extends between the pair of side walls and is coupled thereto to hold the side walls in a spaced relationship; and

a three dimensional reinforcement cage that includes the brace, a plurality of first members, and a plurality of second members perpendicular to the first members, the first members being coupled to at least the brace and the second members ~~and the brace~~ being coupled to at least one of the plurality of first members and the ~~plurality of second members~~brace;

with the or each successive ~~foundation~~ module comprising:

a plurality of formwork members that define a pair of side walls such that the side walls define a space between the side walls;

a brace that extends between the pair of side walls and is coupled thereto to hold the side walls in a spaced relationship; and

a three dimensional reinforcement cage that includes the brace and a plurality of second members,

wherein the plurality of first members of the first ~~foundation~~ module extend beyond the pair of side walls of that module and engage the ~~second members~~brace of the or each successive module and thereby locate the or each successive module ~~with the brace of the or each successive module being coupled to at least one of the second members of that module and the first members of the first module~~;

wherein the first module and the at least one successive module comprise a settable material;

wherein the reinforcement cages form an internal support within the space between the side walls for receiving ~~a~~the settable material, such that~~, upon introduction of the settable material,~~ the side walls become integrated with the internal support as the settable material sets, to consolidate the ~~foundation~~ modules to form the abutment.

~~2. An abutment comprising a first foundation module and at least one successive foundation module layered atop one another to provide a height to the abutment, with each foundation module comprising:~~

~~a pair of side walls that define a space therebetween, with the side walls being held apart in a spaced relationship by a plurality of braces that extend between the pair of side walls;~~

~~a three dimensional reinforcement cage disposed within the space, the reinforcement cage comprising a plurality of first members that extend between successive modules of the abutment, and a plurality of second members that extend along a length of the abutment parallel to the side walls, the first members being coupled to the second members and the braces being coupled to at least one of the of the first members and the second members,~~

~~wherein the first members, second members and braces together form an internal support within the space of the respective modules, such that, upon introduction of a settable material into the space the side walls of the successive modules become integrated with the internal support as the settable material sets, to form the abutment.~~

2. The abutment of claim 1, wherein for each of the first module and the at least one successive module, the plurality of formwork members further comprises a pair of end walls, to enclose the space between the side walls of the modules and form a cavity therebetween.

3. The abutment of claim 1 or 2, wherein for each of the first module and the at least one successive module, the brace, the first members and the second members of the reinforcement cages are mutually perpendicular.

4. The abutment of any one of claims 1 to 3, wherein for each of the first module and the at least one successive module, the brace releasably engages each of the pair of side walls.

5. The abutment of any one of claims 1 to 4, wherein for each of the first module and the at least one successive module, the brace comprises engagement means for cooperating with engagement means of the side walls.

~~3. The abutment of claim 1 or claim 2, further comprising a pair of end plates to enclose a space between the side walls of the modules and form a cavity therebetween.~~

~~4. The abutment of any one of claims 1 to 3, wherein the opposing ends of each brace are mechanically attached to both a side wall of the first module and a sidewall of the successive module to retain the modules in alignment within the abutment.~~

~~5. The abutment of any one of claims 1 to 4, wherein the internal support is reinforced with ligatures and wherein the ligatures encircle the reinforcement cage either horizontally or vertically within the space between the side walls.~~

~~6. A bridge structure including the abutment of any one of claims 1 to 5, with the abutment being formable simultaneously with a portion of a bridge.~~

~~7. The abutment of any one of claims 1 to 6, wherein each of the braces comprise first engagement means for cooperating with second engagement means of the respective side walls.~~

~~8~~6. The abutment of claim ~~7~~5, wherein the ~~first~~ engagement means comprises a pair of elongate protrusions configured to be received by the cooperating ~~second~~ engagement means of the side walls.

~~9~~7. The abutment of claim ~~7~~5 or ~~claim 8~~6, wherein the cooperating ~~second~~ engagement means of the side walls comprises a series of shaped apertures for receiving the elongate protrusions therein.

8. The abutment of any one of claims 1 to 7, wherein for each of the first module and the at least one successive module, at least one of the plurality of second members is welded to at least one of the plurality of first members.

9. The abutment of any one of claims 1 to 8, wherein for each of the first module and the at least one successive module, the brace provides a mechanical attachment at opposing ends thereof.

10. The abutment of any one of claims 1 to 9, wherein for each of the first module and the at least one successive module, the pair of side walls ~~of each module~~ are configured as C-sections.

11. The abutment of any one of claims 1 to 10, wherein each of the first module and the at least one successive module further comprises~~ing~~ a plurality of supplemental reinforcing members spaced between the ~~respective~~ pair~~s~~ of side walls and extending along the length of ~~each of~~ the module~~s~~.

12. The abutment of any one of claims 1 to 11, wherein each of the first module and the at least one successive module further comprises~~ing~~ a base extending between and coupled with a lower portion of each of the pair of side walls ~~of a lowermost of the modules~~, wherein the base is configured with a recess thereby reducing a volume of the space between the side walls.

~~13. The abutment of any one of claims 1 to 12, comprising a primary wall and at least one end wall, wherein the primary wall and each end wall each comprise at least two successively layered foundation modules and a reinforcement cage, wherein spaces of each wall are in fluid communication with each other such that introduction of the settable material thereto consolidates each wall together.~~

~~14. The abutment of claim 13, wherein the reinforcement cage of the or each end wall is interconnected with the reinforcement cage of the primary wall.~~

13. The abutment of any one of claims 1 to 12, wherein each of the opposing ends of the brace are mechanically attached to both a side wall of the first module and a sidewall of the at least one successive module to retain the modules in alignment within the abutment.

14. The abutment of any one of claims 1 to 13, wherein the internal support further comprises additional reinforcement in the form of x-braces.

15. The abutment of any one of claims 1 to 14, wherein the internal support is reinforced with ligatures and wherein the ligatures encircle the reinforcement cage either horizontally or vertically within the space between the side walls.

16. A structure that includes the abutment defined in any one of claims 1 to 15 as part of the structure.

17. The structure defined in claim 16 being a bridge, with the abutment being formable simultaneously with a portion of the bridge.

~~15~~18. A method of constructing an abutment ~~according to any one of claims 1 to 14~~comprising a first module and at least one successive module, the method comprising the steps of:

(a) forming the first module by:

(i) coupling a plurality of formwork members to a brace to define a pair of side walls, the brace holding the side walls in spaced apart relationship forming a space therebetween;

~~(i) layering the successive modules atop one another, the side walls of each module being held in a spaced apart relationship by respective braces thereof to thereby form the space therebetween;~~

(ii) constructing ~~the~~ a three dimensional reinforcement cage by positioning a ~~pair~~ plurality of ~~the~~ first members perpendicular to the brace within the space, and securing the first members to the brace; ~~such that the pair of first members extend between the successive modules,~~ and

(iii) positioning a ~~pair~~ plurality of ~~the~~ second members within the space parallel to the pair of side walls, ~~within each respective module parallel to the side walls, and coupling~~ the second members ~~to the first members and~~being coupled~~ing~~ to at least one of the first members and the brace wherein the plurality of first members extend vertically above the plurality of formwork members~~s to at least one of the first members and the second members such that the cage forms the internal support within the space between the side walls~~;

(b) forming the at least one successive module by:

(iv) coupling a plurality of successive formwork members to a successive brace;

(v) locating the successive formwork members atop the pair of side walls to thereby increase a height of the side walls and increase a volume of the space therebetween;

(vi) constructing a successive three dimensional reinforcement cage by positioning a plurality of successive second members within the space parallel to the pair of side walls, the successive second members being coupled to the first members extending vertically from the first module and to the successive brace, to thereby locate the or each successive module atop the first module such that the reinforcement cage and the at least one successive reinforcement cage form an internal support within the space between the side walls; and

~~(iii)~~(c) introducing ~~the~~ a settable material into the space to simultaneously~~thereby~~ integrate the internal support with the side walls of the first~~each~~ module and the at least one successive module~~as the settable material sets~~, to form the abutment.

~~16. The method of claim 15, further comprising the additional step of: supporting a portion of a bridge upon the three dimensional cage, the bridge comprising a tray defining a cavity, including a reinforcement truss situated within the cavity, such that the cavity is in fluid communication with the space.~~

~~17. The method of claim 16, wherein the settable material is introduced into both the space and the cavity simultaneously to integrate the internal support with the side walls of the structure and integrate the truss with the tray of the bridge as the settable material sets, to form a unitary bridge structure.~~

19. The method of claim 18, further comprising an additional step (d) coupling a plurality of successive braces to each of the side walls.

20. The method of claim 19, further comprising constructing a bridge contemporaneously with the abutment, the method further comprising the steps:

(e) prior to step (c) supporting a portion of a bridge upon the successive three dimensional cage of the at least one successive module, the bridge comprising a tray defining a cavity, including a reinforcement truss situated within the cavity, such that the cavity is in fluid communication with the space between the pair of side walls; and

wherein step (c) introduces the settable material into both the space between the pair of side walls and the cavity to simultaneously integrate both the internal support with the side walls of the abutment, and integrate the truss with the tray of the bridge as the settable material sets, to form a unitary abutment and bridge structure.