THE TEXT

Dekapri/Dekaprinciple. The principle of using a decimal measurement module, normally a 100 mm (one decimetre) module, in designing *T-structures* and *T-works*. Also, refer to *Tokhromarefinement;* and drawings nine, ten, SDT1, SDT2, SDT3 and SDT4.

Eidicolour. Any *Tokhroma* colour not a *Foundationcolour* or *Khromiacolour*. Each *Eidicolour*, is based on rearranging the RGB references of the *Foundationcolours* (both used and unused colours) and by taking any *Tokhromaratio* and its corresponding *Tokhromarefinements*, and then dividing them into 255.

Currently, there are forty-six *Eidicolours* and each colour is defined by a *Khromacode* and an informal *Khromacode*. With the latter being a combination of the term for the basic colour type followed by the second number of the associated *Khromacode*.

Also, refer to *Foundationcolour*, *Khromacode*, *Khromiacolour*, *Tokhromaratio and Tokhromarefinement;* and drawings CC3, CE1, CE2 and CE3.

Foundationcolour. Any one of eighteen specific black, grey and white colours, and there are twenty-six colours with eighteen used. Each *Foundationcolour*, is based on an RGB reference formed by dividing the *Tokhromaratios* and their corresponding *Tokhromarefinements*, from drawings six and AP1, into 255.

The eighteen used colours are defined by a *Foundationcolour* code and a *Khromacode*, with the former code starting with *T* followed by the central or green number of their RGB reference.

With the above in mind, the eighteen *Foundationcolours* are made up of three black colours: *T-5*, *T-19* and *T-30;* thirteen grey colours: *T-49*, *T-64*, *T-79*, *T-97*, *T-114*, *T-128*, *T-149*, *T-158*, *T-167*, *T-184*, *T-195*, *T-206* and *T-218;* and two white colours: *T-241* and *T-252*.

Also, refer to *Eidicolour*, *Khromacode*, *Khromiacolour*, *Tokhromaratio* and *Tokhromarefinement;* and drawings six, AP1, AP2, CC3 and CC6.

Hitenumber. Any one of eight specific *Sequencia* numbers. With these used within the *Oktia* diagram to represent the four female and four male height measurements, when expressed in centimetres: 84, 89, 104, 110, 168, 178, 220 and 233. Also, refer to drawings one and two.

Incidentalarea. A non-proportioned area, created once formally proportioned *Keyareas* have been designed.

Incidentalvolume. A non-proportioned volume, created once a formally proportioned *Keyvolume* has been designed.

Keyarea. A formally proportioned area, produced by the expression: *Tw = l*. A *Keyarea*, is formed from an initial width measurement by using one of the *Tokhromaratios* to proportion its length. If required, two or more can be placed together to form the required *Keyarea*.

For a *T-structure*, *Keyareas* are used to proportion the main elevation and the key elements of it. This includes the main opening or the main panel type and general detailing.

Beyond the above, *Keyareas* can be applied to all forms of *T-works*. Also, refer to *Tokhromarefinement;* and drawings seven, nine and SDT1 and SDT2.

Keyline. A formally proportioned line, produced by the expression: *Ta = l*. A *Keyline,* is formed from an initial line by using one of the *Tokhromaratios* to increase its length.

Keylines, are not widely used in *T-structures* where they can be used for general detailing. Beyond this, they can be applied to all forms of *T-works*. Also, refer to *Tokhromarefinement;* and drawing seven.

Keyvolume. A formally proportioned volume, produced by the expression: *T(th = w) = l*. A *Keyvolume,* is formed from an initial height measurement by using two *Tokhromaratios,* with one to proportion its width and the second using the resulting width measurement to form its length. If required, two or more can be placed together to form the required *Keyvolume*.

For a *T-structure*, *Keyvolumes* are used to proportion the main internal volume; and when defining a specific internal space complex in shape, only the main part need be proportioned. With frame construction *T-structures*, *Keyvolumes* can be placed together with structural columns located at the junctions as required. For loadbearing wall structures, measurements are planned to the wall finishes and for hybrid structures this can be a mixture of both.

Beyond *T-structures*, they can be applied to all forms of *T-works*. Optionally, a *Keyvolume* can also represent a solid in order to mass a *T-structure* or *T-work.* Also, refer to *Tokhromarefinement;* and drawings eight, ten, SDT3 and SDT4.

Khromacode. A standard code given to all *Tokhroma* colours. The method of coding used, is based on a grouping defined by the order of the numbers making up its RGB reference, followed by the sum of the three RGB numbers.

An example would be the *Khromiacolour T2-0*, its RGB reference is 234/120/37, so its *Khromacode* is *T321-391*. To define a grouping where two or three RGB numbers are the same, the order is still observed. Therefore, for the RGB reference 128/128/128, this would be grouped as *T111;* and 255/128/255, would be grouped as *T212* etc.

In addition to this, an informal version of the code can be used, using a combination of the term for the basic colour type followed by the second number of the associated *Khromacode;* such as *Blue-734* for *T123-734* or *Kakao-95* for *T312-95* etc. For these, the following terms are used for the basic colour types: *Black-*, *Blue-*, *Bluegreen-*, *Blueviolet-*, *Elaia-* (olive), *Graphio-* (grey), *Green-*, *Kakao-* (brown), *Krema-* (cream), *Nikelio-* (ochre-grey), *Okhra-* (ochre), *Orange-*, *Red-*, *Redorange-*, *Redviolet-*, *Rozio-* (pink/rosé), *Violet-*, *White-*. *Yellow-*, *Yellowgreen-* and *Yelloworange-*. The exception to this rule being the *Eidicolour T123-335*, the first *Eidicolour* to be created, with this known by its original reference *Demokratiablue*.

Also, refer to *Eidicolour*, *Foundationcolour* and *Khromiacolour;* and drawings CC5, CC6, CE1, CE2 and CE3.

Khromia. A diagram, designed to highlight seventeen of the twenty-six *Khromiacolours*.

For this, the following *Khromiacolours* are used to form the *Khromia: T-D3*, *T-L3*, *T2-0*, *T2-D1*, *T2-D2*, *T2-L1*, *T2-L2*, *T6-0*, *T6-D1*, *T6-D2*, *T6-L1*, *T6-L2*, *T10-0*, *T10-D1*, *T10-D2*, *T10-L1* and *T10-L2*. Also, refer to *Khromiacolour;* and drawings three, CC1, CC2, CC3 and CC4.

Khromiacolour. Any one of twenty-six specific colours, with all the colours specially designed to visually match their corresponding colours from a physical printed copy of the *'Color Star'* (Itten – ISBN 0-471-28931-0).

Each *Khromiacolour*, is based on an RGB reference formed by taking the RGB references of the *Foundationcolours* (both used and unused colours) and separating them into their individual numbers. These are then intermixed to form each *Khromiacolour* RGB reference.

Each colour is defined by a *Khromiacolour* code and a *Khromacode*. The former code starts with *T* or *T1* to *T12*, with *T1* to *T12* referring to positions on the Itten Color Star and *Khromia*. The second part of the code: *0*, *D1*, *D2*, *D3*, *L1*, *L2* or *L3;* then defines the shade.

With the above in mind, the twenty-six *Khromiacolours* are made up of one black colour: *T-D3;* one blue colour: *T8-0;* one blue-green colour: *T9-0;* one blue-violet colour: *T7-0;* five green colours *(Tokhromagreens): T10-0*, *T10-D1*, *T10-D2*, *T10-L1* and *T10-L2;* five orange colours *(Tokhromaoranges): T2-0*, *T2-D1*, *T2-D2*, *T2-L1* and *T2-L2;* one red colour: *T4-0;* one red-orange colour: *T3-0;* one red-violet colour: *T5-0;* five violet colours *(Tokhromaviolets): T6-0*, *T6-D1*, *T6-D2*, *T6-L1* and *T6-L2;* one white colour: *T-L3;* one yellow colour: *T12-0;* one yellow-green colour: *T11-0;* and one yellow-orange colour: *T1-0*.

Also, refer to *Eidicolour*, *Foundationcolour*, *Khromacode, Khromia, Tokhromagreen, Tokhromaorange* and *Tokhromaviolet;* and drawings three, CC1, CC2, CC3, CE1, CE2 and CE3.

Oktia. A diagram, linking the eight *Hitenumbers* of the *Sequencia* to the female and male human forms. Also, refer to drawings two, four and five.

Sentence. A metaphorical or physical form of column, with no formal sub-divisions, forming the majority of the elevation of a *T-structure.*

A *Sentence,* can be columns or curtain walling; or non-load-bearing/loadbearing walling, with openings for individual door and window elements. With the latter, pilasters are not envisaged. Also, refer to *Start* and *Stop;* and drawings nine, SDT1 and SDT2.

Sequencia. A group of forty-eight numbers, made up of four vertical geometric sequences, each containing twelve numbers based on the Fibonacci sequence containing the Φ ratio (1.618 : 1); and twelve horizontal geometric sequences based on the double square ratio (2 : 1), each containing four numbers.

For the purposes of *Tokhroma*, the initial digit of the Fibonacci sequence is omitted to avoid duplicating the first horizontal sequence (1, 2, 4 and 8). Also, refer to drawing one.

Start. A metaphorical or physical form of krepis without stepped sub-divisions, with pilotis an option; forming the aesthetic base of a *T-structure.* A *Start,* can be one or more floors/storeys in height, or less than one floor/storey in height.

A *Start,* is seen as a logical beginning to the associated *Sentence.* Also, refer to *Sentence* and *Stop;* and drawing nine.

Stop. A metaphorical or physical form of entablature of a *T-structure,* with no formal sub-divisions, and always less than one floor/storey in height.

A *Stop,* is seen as a logical termination to the associated *Sentence*, in conjunction with the chosen flat or pitched roof type. Also, refer to *Sentence* and *Start;* and drawing nine.

T-series. A range of eleven paper sizes, based on the Φ ratio (1.618 : 1), and the √2 (diagonal of a square) ratio (1.414 : 1) of the existing A-series. Each page of this work, has been laid out using *T4* format and then printed in A4.

T0. 737 mm x 1189 mm (A0 being: 841 mm x 1189 mm)

T1. 520 mm x 841 mm

T2. 368 mm x 594 mm

T3. 260 mm x 420 mm

T4. 184 mm x 297 mm (A4 being: 210 mm x 297 mm)

T5. 130 mm x 210 mm

T6. 92 mm x 148 mm

T7. 65 mm x 105 mm

T8. 46 mm x 74 mm

T9. 32 mm x 52 mm

T10. 23 mm x 37 mm

T-structure. An architectural work, incorporating the elements of *Tokhroma*.

T-system. A group of ten capacity, linear and weight measurements derived from the sixth *Hitenumber* when converted into centimetres and then expressed in metres or millimetres.

The *T-system*, has been created to ensure that *Tokhroma* has an integral decimal system of measurement, to enable the seamless use of the numerical and proportional elements. As the existing metric system also provides this, if desired the following units can be used within a metric context.

1 x *hite (h)*, equal to 1.78 m / 1780 mm; also equal to 4.8 Egyptian remen (24 : 5) and 5.76 Greek feet (144 : 25).

1 x *hand (hd)* = 0.1 (10th) *hite (h)*

1 x *phora (p)*, equal to the capacity of one cubic *hand* of water (178 mm x 178 mm x 178 mm), using the standard measurements for temperature and atmospheric pressure, and equal to 5.64 litres (1.78 $litres^3$).

1 x *weytt (w)*, equal to the weight of one cubic *hand* of water as specified above and equal to 5.64 kg (1.78 kg^3).

1 x *millihite (mh)* = 0.001 (1000th) *hite (h)*
1 x *milliphora (mp)* = 0.001 *phora (p)*
1 x *milliweytt (mw)* = 0.001 *weytt (w)*
1 x *khilohite (kh)* = 1000 *hites (h)*
1 x *khilophora (kp)* = 1000 *phoras (p)*
1 x *khiloweytt (kw)* = 1000 *weytts (w)*

For further measurements, these can be produced by using the standard metric prefixes *mega- (M- / 10^6)*, *giga- (G- / 10^9)*, *micro- (µ- / 10^{-6})* or *nano- (n- / 10^{-9})* etc. Also, refer to drawings LU1 and LU2.

T-work. An art or design work, incorporating the elements of *Tokhroma*.

Tokhroma. A fusion of the Gk terms 'tome' (a cutting) and 'khroma' (colour). The former, is a reference to dividing a line by the extreme and mean or Φ (golden section) ratio (1.618 : 1). As defined by Euclid's *'Proposition 30' - 'Book VI'*.

Tokhromagreen. Any one of the five green *Khromiacolours*, also known by the *Khromiacolour* codes: *T10-0*, *T10-D1*, *T10-D2*, *T10-L1* and *T10-L2;* with these codes referring to their positions on the *Khromia.*

For a *T-structure*, when green is required, the lightest two *Tokhromagreen* colours *T10-L1* and *T10-L2*, are used for the complete or partial colouring of the exterior. For *T-works*, any combination of *Eidicolours*, *Foundationcolours* or *Khromiacolours* can be used.

For *T-structures*, when the *Starts* and *Stops* are finished in *Tokhromagreen T10-L1* or *T10-L2*, these are designed to be used in combination with certain coloured *Sentence* materials. With these materials being, mottled buff brick (with light buff flush bagged/rubbed joints), metallic nickel (glass panels with exposed metal frames or metal solar mesh cavity inserts within bonded glass panels) or matching *Tokhromagreen* (metal solar mesh cavity inserts within bonded glass panels, render or weatherboarding).

Other colour considerations, concern *Sentences* with openings for individual door and window elements. And for the doors and frames of these elements, consider satin black (metal, plastic or timber frame materials, with matching solid doors); or when the *Sentence* is matching *Tokhromagreen*, also consider satin *Tokhromaviolet T6-L1* or *T6-L2* (metal, plastic or timber frame materials, with matching solid doors). For the internal finishes of these door and window elements, consider satin black in all cases. For windows and glass doors, where metal solar mesh cavity inserts are required, consider metallic light nickel for these inserts in all cases.

When specifying other *Sentence* finishes, with openings for individual door and window elements, when using other coloured render or dressed stone. Then an example covering both, would be to have matching *Sentences, Starts* and *Stops*, with the doors and frames in satin black (metal, plastic or timber frame materials, with matching solid doors) or metallic nickel (metal frames only, with solid doors in satin non-metallic nickel).

For *Sentences* made up of glass panels with exposed metal frames in metallic nickel, as mentioned above, when metal solar mesh cavity inserts are required, then consider metallic light nickel for these inserts.

Further colour considerations concern visible pitched roofs, and in all situations consider metallic dark grey metal sheeting or mottled dark grey tiles. Also, for elements such as external ironmongery, consider brushed stainless steel, with brushed stainless steel or satin chrome for the internal ironmongery. For other external metalwork, such as railings, with *Sentences* with individual door and window elements, match these with the door and window colour finishes; or when a panel system is used for the *Sentence*, match these with the panel system colour instead.

Finally, for further finishes and as new materials and construction technics evolve, the various colour considerations outlined above and below, can be adapted as required. Also, refer to *Tokhromaorange and Tokhromaviolet,* and drawings three, nine, CC1, CC2, CC3, SDT1 and SDT2.

Tokhromaorange. Any one of the five orange *Khromiacolours*, also known by the *Khromiacolour* codes: *T2-0*, *T2-D1*, *T2-D2*, *T2-L1* and *T2-L2;* with these codes referring to their positions on the *Khromia*.

For a *T-structure*, when colour is required, the lightest two *Tokhromaorange* colours *T2-L1* and *T2-L2*, are used for the complete or partial colouring of the exterior. For *T-works*, any combination of *Eidicolours*, *Foundationcolours* or *Khromiacolours* can be used.

For *T-structures*, when the *Starts* and *Stops* are finished in *Tokhromaorange T2-L1* or *T2-L2*, these are designed to be used in combination with certain coloured *Sentence* materials. With these materials being, mottled buff brick (with light buff flush bagged/rubbed joints), metallic nickel (glass panels with exposed metal frames or metal solar mesh cavity inserts within bonded glass panels) or matching *Tokhromaorange* (metal solar mesh cavity inserts within bonded glass panels, render or weatherboarding).

Other colour considerations, concern *Sentences* with openings for individual door and window elements. And for the doors and frames of these elements, consider satin black (metal, plastic or timber frame materials, with matching solid doors); or when the *Sentence* is matching *Tokhromaorange*, also consider satin *Tokhromagreen T10-L1* or *T10-L2* (metal, plastic or timber frame materials, with matching solid doors). For the internal finishes of these door and window elements, consider satin black in all cases. For windows and glass doors, where metal solar mesh cavity inserts are required, consider metallic light nickel for these inserts in all cases.

For further considerations and information, refer to the text for *Tokhromagreen.* Also, refer to *Tokhromagreen* and *Tokhromaviolet;* and drawings three, nine, CC1, CC2, CC3, SDT1 SDT2.

Tokhromaratio (T/t). A formal ratio, created by combining any two numbers from the *Sequencia* together, with the smallest being 1 : 1 and the largest 1864 : 1.

The various ratios, created by combining the eight *Highnumbers* of the *Oktia*, are also regarded as *Tokhromaratios.* Also, refer to drawings one, two, six, seven. eight, nine, ten, AP1 and AP2.

Tokhromarefinement. A proportional tolerance, for adjusting irrational numbers into rational numbers. Created so that the measurements of *Keylines, Keyareas* and *Keyvolumes*, can be turned into usable measurements for construction and manufacturing purposes.

The tolerance for a *Tokhromarefinement*, ranges between the two proportional extremes 0.989 : 1 : 1.03 or for *Tokhroma* expressed as 0.989/1/1.03, where 1 is the original sum or ratio. These are based on the proportional relationships between the Φ ratio fluctuations of 1.6 : 1.618 : 1.667, that naturally occur within the Fibonacci sequence. With 1.618, being the Φ ratio correct to three decimal places. Also, refer to drawings six, seven, eight, AP1 and AP2.

Tokhromasequence (Ts). A geometric sequence, formed by three or more consecutive diagonal, horizontal or vertical numbers from the *Sequencia*.

For the diagonal version, running upwards from left to right, the sequence is based on the 2 divided by Φ ratio (1.236 : 1), expressed as: 233, 288, 356… . With the horizontal version, the sequence is based on the double square ratio (2 : 1), expressed as 1, 2, 4…, also expressed as: 233, 466, 932… . For the vertical version, the sequence follows the Fibonacci sequence and the Φ ratio (1.618 : 1), with this expressed as: 89,144, 233… .

Like *Keylines, Tokhromasequences* are not widely used in *T-structures,* where they can be used for general detailing. Beyond this, they can be applied to all forms of *T-works*. Also, refer to drawing one.

Tokhromaviolet. Any one of the five violet *Khromiacolours*, also known by the *Khromiacolour* codes: *T6-0*, *T6-D1*, *T6-D2*, *T6-L1* and *T6-L2;* with these codes referring to their positions on the *Khromia.*

For a *T-structure*, when colour is required, the lightest two *Tokhromaviolet* colours *T6-L1* and *T6-L2*, are used for the complete or partial colouring of the exterior. For *T-works*, any combination of *Eidicolours*, *Foundationcolours* or *Khromiacolours* can be used.

For *T-structures*, when the *Starts* and *Stops* are finished in *Tokhromaviolet T6-L1* or *T6-L2*, these are designed to be used in combination with certain coloured *Sentence* materials. With these materials being, mottled red brick (with buff flush bagged/ rubbed joints), metallic nickel (glass panels with exposed metal frames or metal solar mesh cavity inserts within bonded glass panels) or matching *Tokhromaviolet* (metal solar mesh cavity inserts within bonded glass panels, render or weatherboarding).

Other colour considerations, concern *Sentences* with openings for individual door and window elements. And for the doors and frames of these elements, consider satin black (metal, plastic or timber frame materials, with matching solid doors); or when the *Sentence* is matching *Tokhromaviolet*, also consider satin *Tokhromaorange T2-L1* or *T2-L2* (metal, plastic or timber frame materials, with matching solid doors). For the internal finishes of these door and window elements, consider satin black in all cases. And for windows and glass doors, where metal solar mesh cavity inserts are required, consider metallic light nickel for these inserts in all cases.

For further considerations and information, refer to the text for *Tokhromagreen.* Also, refer to *Tokhromagreen* and *Tokhromaorange;* and drawings three, nine, CC1, CC2, CC3, SDT1 and SDT2.