DISCUSSION
ORNAMENTAL PLANTS OF COLE PARK, TEZPUR:

The avenue trees and shrubs at the main entrance of Cole park comprised of both accentuating and incongruous plants. The plants found near the entrance are Oreodoxa regia, Nerium indicum and Polyalthia longifolia. These three species have different plant architectures. Oreodoxa regia has tall smooth white cylindrical stem whereas Polyalthia longifolia and Nerium indicum have pyramidal and round form, respectively (Sketch - 1, Plate - 20). The plant architectures showed lack of unity because of their sharp angular and round top line (Sketch - 2, Plate - 20). Similar principles have also been expressed by Midgely (1966) and Sanhack (1980) regarding grouping of different plant architectures from the existing works in the Savil garden and Windsor great park. The front row avenue shrubs of main garden path are Codiaeum variegatum and Acalypha hispida. These are dominant species because of their bright red-orange and brick red coloured foliage. It is followed by Polyalthia longifolia, Pinus longifolia, Tabernaemontana coronaria, Nerium indicum, Tabernaemontana divaricata, Ixora chinesis, Jasminum sambac and Jasminum multiflorum. Among these plants Polyalthia longifolia and Pinus longifolia are unpleasing from the point of mass effect as well as plant height relationship. The open head needle leaves of tall pine trees neither serve as a background to
A: Pyramidal (polyalthia longifolia) Line Expression
B: Cylindrical (Oreodoxa regia)
C: Round (Nerium indicum)

PLANT ARCHITECTURES

Sketch No. 1

Grouping of plant architectures showing lack of unity among angular, straight and curve lines.

PLANT ARCHITECTURES AND ITS GROUPING

Sketch No. 2 Plate No. 20
UNPROPORTIONATE PLANT HEIGHT RELATIONSHIP
Sketch No. 3

Sketch No. 4
DIRECTION OF EYE SIGHT
MIDDLE ROW
BACK ROW, DWARF SHRUB
EDGING
ROAD
VISUAL OBSTRUCTION AT COLE PARK

PLANT HEIGHT RELATIONSHIP AND VISUAL OBSTRUCTION

plate No.21
LOSS OF CADENCE IN DEARTH OF SEQUENCE AMONG TREES & SHRUBS

Sketch No.5

PROGRESSIVE SYMMETRICAL SEQUENCE AND CADENCE

Sketch No.6 Plate No. 22

PLANT RELATIONSHIP ON SEQUENCE AND CADENCE
focus the *Codiaeum variegatum* and *Acalypha hispida* in the front, nor in the formation of effective textural foliage character with other shrubs. Similarly, these species with *Polyalthia longifolia* exhibit an unproportionate scale in plant height relation at the avenue (Sketch - 3, Plate - 21). Henry, (1953) and Hackett (1979) have also expressed their views regarding use of dense foliage plants as background and consideration of various textured foliage plants with proportionate plant height for better mass effect. Since, *Polyalthia longifolia* is too tall in comparison to *Codiaeum variegatum* and *Acalypha hispida*, some dwarf flowering shrubs like *Jasminum sambac*, *Ixora chinensis*, *Tabernaemontana coronaria* and *Tabernaemontana divaricata* are planted behind the *Polyalthia longifolia*. The pyramidal shaped *Polyalthia longifolia* hides the above dwarf plants. (Sketch - 4, Plate 21). Thus, these shrubs are insignificant in the avenue. Most of the trees and shrubs of the avenue are planted at irregular spacing. Size and shape of each plant is not maintained. *Tabernaemontana coronaria*, *T. divaricata*, *Hibiscus rosa-sinensis* and *Nerium indicum* are bigger in shape than *Jasminum sambac*, *Ixora chinensis*, *Acalypha hispida*, and *Codiaeum variegatum*. Further, shrubs with varied shape and size are planted haphazardly. It loses sequence resulting in lack of unity, causing ugliness (Sketch No. 5,6, Plate No. 22), as per theory of development of progressive symmetrical sequence and cadence of Simond (1961), Hackett, (1979). A *Cassia renigera* is found in midst
of *Mangifera indica* and *Artocarpus integrifolia* at the back of the stone house. The *Cassia renigera* adds pink colour during its flowering seasons (May - June). However, its colour intensity in comparison to colour theories of Helen (1980) and Thrower (1969) is negligible because of the introduction of single tree among the huge dark green mass of *Mangifera indica* and *Artocarpus integrifolia*. The plant architecture of *Cassia renigera* is umbrella form with open branch habit, whereas *Mangifera indica* and *Artocarpus integrifolia* are of a compact round architecture. Thus, the *Cassia renigera* breaks the link of green mass and behaves as incongruous element in the group (Sketch No. 9, Plate No. 23) and elimination of this species is therefore, * sine-qua-non* (Simond, 1961).

Towards the south-west corner of the park, *Mangifera indica*, *Eucalyptus citriodora*, *Ficus religiosa*, *Terminalia arjuna*, *Litchi chinensis* and *Eugenia Jambolana* are planted at close spacing which makes the area damp and sombre in character. The existence of these big plants renders the space unsuitable for growing other seasonal flowers and shrubs. But the importance of this spot cannot be overlooked since it is located near the main entrance. Moreover, the whole area is greatly dominated by the big holla and this little portion has to be utilised scientifically. This can be done to some extent by uprooting the big trees. In the same way, due emphasis has not been given at the south-east end of the park. The existing *Eucalyptus citriodora*, *Mangifera indica*, *Acacia auriculiformis*,...
INCONGRUOUS PLANT
Cassia renigera

Mangifera indica

INCONGRUOUS Cassia renigera IN THE MIDST OF CONGRUOUS Mangifera indica

Sketch No. 7

Sketch No. 8

CONGRUOUS PLANTS

INCONGRUOUS AND CONGRUOUS PLANTS IN ORDER
REST POINT

LINE OF APPROACH (SHOWING SPEED AND DIRECT MOTION)

MANGO AND JACKFRUIT TREES AS ENCLOSURE

STONE HOUSE AS FOCAL FEATURE

GARDEN PATH (INWARD DIRECT PULL TO THE FOCAL FEATURE)

Sketch No. 10

ABSTRACT LINE EXPRESSION ON ENCLOSURE
Gmelina arborea, Aegle marmelos and Delonix regia make the land a jungle. Remodelling of this spot by removing some trees can be done for efficient utility of the land.

The focal point of the park is a 'stone house' located at the end of the approach road. It is surrounded by a dark green row of Mangifera indica and Artocarpus integrifolia trees (Sketch No. 10, Plate No. 24). The end point is properly planned by focal feature viz. stone house. The beauty of the stone house is further enhanced by the row of Mangifera indica and Artocarpus integrifolia. It serves as an enclosure as per the theory of enclosure expressed by Simond (1961). The character of the enclosure can be more effective by introducing another continuous row of Bougainvillea and Delonix regia in front of existing Mangifera indica and Artocarpus integrifolia. The Bougainvillea would provide red colour at ground level and orange vermilion from Delonix regia at sky level. This interlinks the red orange and brick red colours of Codiaeum variegatum and Acalypha hispida from main entrance. The park is disturbed by traffic noise from the busy Jenkin's and David's Scott roads. But no attempt has been taken so far to overcome the noise problem. According to Carpenter, (1975) and Rutledge, (1971), the problem may be solved by introducing dense foliage conical shaped plants. Therefore, plants like Measua ferrea can be planted in the side of the boundary wall. It may minimise the noise problem.
EXTINCT OF NOISE PROBLEM

AIR FILTERATION BY PLANT

FUNCTIONAL PLANT CHARACTER
and filter the air partially from dust (Sketch No. 11 and Plate No. 25). A Samanea saman or Terminalia arjuna and a tall hedge of Clerodendron inerme may be introduced at the back side of the school complex, located at the northwest corner of the park. These plants diffuse the roaring sound coming from the school campus and serve as background to focus the school building. The hedge line would separate the school from the park. The avenue trees and shrubs of the approach road may be re-planned by planting Acalypha hispida. Codiaeum variegatum shrubs in regular plant to plant spacing alternately from the gate post. Behind this avenue of shrubs, evergreen Casurina equisetifolia or Cypressus species may be planted at back to focus the coloured foliage of front avenue. A row of edging with Santolina species may be planted at both sides of the road to enhance the beauty of the garden path. In the children’s play area as showed in Plate No. 7, some tree sculptures in the form of birds, animals etc. may be erected from Clerodendron inerme at random for visual interest of children. Cool spot of the park towards south-west side may be re-shaped by removing existing big trees and by substituting small herbaceous plants like Caladium, canna and other bulbous plants in a random manner. The south-east unplanned area may be planned by constructing one m wide meandering, curved garden path. Both sides of the path may be decorated with Santolina, Pelia edging, and
other flowering foliage shrubs like Hibiscus, Mussaenda, Ixoras and Bougainvillaea in a random style to illuminate the colour scheme of the park.

ORNAMENTAL PLANTS OF PLAZA, ASSAM AGRICULTURAL UNIVERSITY:

The plaza of Assam Agricultural University is symmetrically planned by ornamental trees and shrubs where accentuating elements are found opulent. The continuous row of uniform hedge of Clerodendron inerme around the side walks makes the border of the lawn nice. These hedge lines make strong horizontal lines on ground. It establishes a good relation with similar, horizontal columns of neighbouring buildings. Thus it brings integration with structures (Sketch No. 14, Plate No. 26). Similarly, Polyalthia longifolia var. Pendula located at P, Q, R, S, T and V blocks creates vertical lines from its arrow plant architecture (Sketch No. 14 and Plate No. 26). These plants link up the garden with vertical columns of surrounding buildings also. Hence, in comparison to site structure unity principle of Lemon (1952) and Simond (1961) the planting design of the plaza is very pleasing. On the other hand the site character of the plaza is confined (Sketch, No. 14a and Plate No. 28) because of its surrounding buildings. But this expression of confinement is an unpleasing one according to confined conception of Woseley (1969) and Newton (1971). Naturally which needs some accentuating elements to avoid such type of confined character of the site. For this purpose,
sketch No. 13

ARROW PLANT ARCHITECTURE (Polyalthia longifolia) Var. Pendula

Sketch No. 14

HORIZONTAL LINES

VERTICAL COLUMN

POLYALTHIA AS VERTICAL "AXIS"

SIDE WALK

HEDGE LINE

INTEGRATION BY HEDGE AND POLYALTHIA WITH PREMISES

PLANT INTEGRATION WITH STRUCTURES
LINE EXPRESSION: FLAT SURFACE CREATES MONOTONY

MONOTONY ON FLAT SURFACE NEEDS VERTICAL THRUST

INTERPLAY OF VERTICALS AND HORIZONTALS

CADENCE, MONOTONY, AND INTERPLAY OF VERTICALS AND HORIZONTALS

PLATE No. 27
Sketch No. 16 (a)

SITE EXPRESSION OF PLAZA SHOWING CONFINED CHARACTER

Sketch No. 16 (b)

OUTWARD
PULL BY
PLANTS

VISUAL SITE EXPANSION... CHARACTER

SITE EXPRESSION CHARACTER

Plate No.28
blocks 'R' and 'V' have been planted with *Oreodoxa regia* and *Pc-lyalthia longifolia* var. Pendula at a uniform spacing for visual outward site expression (Sketch No. 14b and Plate No. 28). The *Casuarina equisetifolia* located at blocks G, I, L, and N, similarly *Ixora singaporensis*, *I. chinensis* and *I. coccinea* in blocks F, H, K and M with uniform plant to plant spacing and maintained properly create pleasant visual effects. Since these are arranged in an alternate sequence, they develop cadence (Sketch No. 15, Plate No. 27). Similar principles regarding development of alternate sequence and cadence illustrated by Ortloff (1959) and Simond (1961) in their text also. Simond (1961), Daubenmine (1967) and Walker (1971) mentioned again about the principle of vertical and horizontal relationship that plants which are vertical at same heights eschew the monotony at the flat surface. It is however, pleasing in different heights as it formulates a pleasing interplay of visual effect in between vertical and horizontal spaces (Sketch No. 10, Plate No. 27). Therefore, the relative height of *Casuarina equisetifolia* and *Ixoras* break the monotony as well as develop interplay of visual effect in between vertical and horizontal spaces. Thus the plaza becomes a paragon of beauty. A *Ravenala madagascarensis* found at the block 'J' situated at the end point of the main side walk where from two sub-side walks are bifurcated. The plant serves as a resting point for eye sight motion and then helps to divert attention towards other directions in reference to motion impelled concept of
At first sight the plaza looks beautiful, but the total colour scheme is poor. Green colour is a dominant feature of the plaza from the lawn. The intensity of green is increased from the dark green *Casuarina equisetifolia*. Though the Bougainvillea contributes red colour during the flowering season (March - April), its effect is negligible. Hence, introduction of red colour plants at the plaza will be essential to maintain colour harmony, according to colour theory of Midgley (1966), Dibble (1967) and Halen (1980). Brick red ornamental foliage shrubs *Acalypha hispida* may be introduced as edging around the side walks of blocks A, B, C, and D. It would provide red colour all through the year as well as integrate the garden with horizontal pink colour columns of surrounding buildings. The pink and cream colours of building walls dominate the garden. Therefore, the situation is partially improved by *Polyalthia longifolia* and *Oreodoxa regia* at blocks P, Q, R, T, and V. The colour scheme of the garden further may be developed by seasonal flowers like marigold, salvia, calendula, etc. In addition to these, the four corners of the blocks A, B, C and D may be decorated with Bougainvillea Dr. R.R. Pal in an arch. The existing rows of *Casuarina equisetifolia*, *Ixoras*, *Clerodendron inerme* and suggested *Acalypha hispida* in the blocks F, G, H, I and N, M, I, K create parallel lines (Sketch No. 18, Plate No. 29). These lines cause infinity.
Sketch No. 19

EDGING LINE

SHRUB

LOGICAL PLANNED LINE

LOGICAL PLANNED LINE DEVELOPMENT

Sketch No. 20

UNSUITABLE LOWER DEGREE OF VERTICAL

SUITABLE DEGREE OF VERTICALS AND VOLUMES

LOGICAL PLANNED LINE AND DEGREE OF VERTICALS

Plate No. 30
Therefore, an edging of Bambusa nana or Amaranthus may be accentuated among the Casuarina equisetifolia and Ixoras (Sketch No. 19, Plate No. 30). The vertical thrust from the level of Casuarina equisetifolia, Polyalthia longifolia var. Pendula and Oreodoxa regia is not sufficient for the centre plaza area. Therefore, tall columnar forms of trees like Cupressus funnebris may be introduced at the four corners of the 'Swahidbedl'. It would make the Swahidbed more delightfully solemn (Sketch No. 20, Plate No. 30).

ROAD SIDE PLANTS OF ASSAM TRUNK ROAD NEAR DISPUR, GUWAHATI:

Grevillea robusta plants are dominant in the entire study area. Tall cylindrical uniform textural trunk with gray silver colour from canopy creates monotony in the avenue. Because of its cylindrical plant architecture, the plant fails to cast its shadow to the pedestrians (Sketch No. 22, Plate No. 31). On the other hand, since this species is taller than Delonix regia, Cassia fistula, Peltophorum petrocarpum and Callistemon lanceolatus, the beauty of the latter is hidden. Even the height is unproportionate according to the need of structural elements like Assam Type quarters, A.S.T.C. Office etc. Therefore, the Grevillea robusta fails to serve its beneficial functional role in the landscape. It needs to be eliminated according to functional theory of Robinette (1972) and Carpenter (1975). The eastern row of trees, by the side of trunk road, provides various type of plant architectures.
Sketch No. 21

NIGHT GLARE FROM HEAD LIGHT

Sketch No. 22

UNSUITABLE SHADOW PATTERN

NIGHT GLARE AND SHADOW PATTERN
Sketch No. 23

COLUMNS
(Grevillea robusta)

ROUND
(Ficus religiosa)

UMBRELLA (Delonix regia)

PICTURESQUE
(Cassia fistula)

OPEN HEAD (Eucalyptus citridora)

WEARING (Salix babylonica)

PLANT ARCHITECTURES

Plate No. 32
Plants are not uniform in size and are irregular in plant to plant spacing. Eucalyptus citriodora exhibits open free branching head, Cassia fistula shows picturesque. Delonix regia is of umbrella shaped and Ficus religiosa, Pongamia glabra are of round type (Sketch No. 23, Plate No. 32). Use of different plant architectures haphazardly results in loss of unity, cadence, and develops friction of forms. It also fails to keep relation with the row of Grevillea robusta. Therefore, these plant species may be eliminated from such a group of plants. The parking area near the entrance to Janata Bhavan is decorated with a Delonix regia and two Cassia fistula. These two species of trees make the entrance beautiful with bright yellow and orange vermilion colour, but from the point of utility it casts only light shadow on the parking place. Species of plants like Delonix regia, Albizzia lebbek, Cassia Fistula and Pongamia glabra are on the bank of the pond at the west side of the walk. These trees keep away the pond area from travellers. Therefore, space organisation of this place is meagre as per the theory of organisation of space expressed by Johnson and Doty (1958). The residential area near the second entry is full of thick plantations of Cassia fistula, Delonix regia, Gmelina arborea, Callistemon lanceolatus, Peltophorum petrocarpum and Pongamia glabra. These trees are planted to maintain the privacy of the residential quarters. But the tree canopy at the top with cylindrical trunk at base is totally a failure. Therefore, these trees bear
no importance from the point of usefulness. It is however not in a position to protect the residence from the glare of headlight of vehicles (Sketch No. 21, Plate No. 31). Similar principles have also been expressed by Prokter (1973) and Carpenter (1975) regarding effective use of pyramidal shaped plant for creating privacy through visual and glare control from head light of vehicle. A big voluminous *Samanea saman* performs some favourable functions. It is not only changing the textural character of *Grevillea robusta* but it breaks the monotony too. It’s shadow is of great expectation to the tourists. Moreover it’s dark shady spot is very pleasing to pedestrians coming across the long sunny area.

Though a large number of ornamental plants are grown in the site, the plantation is unmethodical and it fails to create beauty. In most cases introduction of some accentuating elements may yield a positive result. *Grevillea robusta* may be replaced by an adequate number of *Mesua ferrea* from Janata Bhavan road to second entry and remaining part to be followed by some *Polyalthia longifolia*. It would provide adequate shadow because of its pyramidal architecture and there would be no eternal struggle trees and power line as expressed by Zion (1968), Prokter (1973) and Carpenter et al (1975). Glare from direct overhead electric light would be dim (Sketch No. 25, Plate No. 33). The side branches of *Mesua ferrea* and *Polyalthia longifolia* almost from the bottom would minimise the glare of the vehicles (Sketch No. 26 and 27, Plate No.
Sketch No. 24

UNSUITABLE NIGHT GLARE FROM STREET LAMP

GLARE CONTROL FROM STREET LAMP

GLARE AT NIGHT

Plate No. 33
Sketch No. 26

GLARE REFLECTION

Sketch No. 27

MAKING COMFORT OF GLARE AND SHADOW

CONTROL OVER GLARE REFLECTION
UNDESIRABLE VIEWS

PLANT FOR OBSTRUCTION

DIRECTION OF SIGHT

WALK

CAR

ROAD

VISUAL OBSTRUCTION FOR UNDESIRABLE VIEWS

RESIDENCE

TALL HEDGE FOR PRIVACY

VIEWS OBSTRUCTED

VISUAL OBSTRUCTION FOR PRIVACY

VISUAL OBSTRUCTION BY PLANT
34). These two species of plants may change the textural effect for visual interest. Further, these would maintain the structural unity among Assam type buildings and other features. The opposite row may also be substituted with Mesua ferrea and Polyalthia longifolia to develop pleasant progressive sequence on both sides of the road. Due to dearth of shade, the parking area becomes unsuitable. It can be made useful by planting Bougainvillea at the border of the parking place over iron structure. The pond may be orgainsed as an integral part of the pedestrian path. An informal border of Bougainvillea on the west side bank of the pond may be introduced with two Salix babylonica at both ends of the border. Drooping light branches of Salix babylonica would pendulate on water surface in breeze. Reflection of Bougainvillea would brighten the spot. The eastern side of the bank may be decorated by Hibicus rosa-sinesis to develop visual elegant patterns. The ugly screen of bamboo wall in residences may be replaced by tall box type hedge of Clerodendron inerme or Casuarina equisetifolia. It may maintain privacy (Sketch No. 29. Plate No. 35) and reduce the head light's glare of motor cars and minimise the sound pollution from the road and make the lives at Dispur (Study area) more comfortable.

ORNAMENTAL PLANTS ON BANK OF THE RIVER BRAHMAPUTRA, NEAR FANCY BAZAR, GUWAHATI, ASSAM:

At first sight it looks like a screen of green mass at the top. The ground level is dominated by some
vertical pillars of overlapping trunks of trees (Sketch No. 37, Plate No. 39). The screen, however, is serving as barrier and as a result of which the natural river view is completely hidden and the bank is by itself keeping away from the city. A pedestrian walk is running by the side of the bank. The overhead electric lines running by the side of the pedestrian walk, wage struggle with the spreading plants viz. Ficus religiosa, Eucalyptus citriodora, Acacia auriculiformis, Gmelina arborea and Peltophorum petrocarpum. Each of the electric post is provided with a pair of street lamp. But one lamp is always hidden in leaves of trees. Thus, the lamp is of no use. Therefore, these trees are incongruous in this respect. A bulk of Eucalyptus citriodora are available on the bank of river. These are the plants with shallow root system and are not suitable near the water side area. There is every possibility of these trees getting uprooted and therefore, these are inconvenient in garden. The haphazard trees standing on the bank of the river serve no business of landscape but make wood land offering shelter to homeless dwellers.

Bhagavan mahabir park is a beautiful spot with thin plantation. The ground is made of lawn with Paspalum grass. It also saves the surface from erosion. Ficus religiosa provides shadow. Santolina edging with its red foliage clearly shows the direction of the meandering path in midst of green in contrast. Having been pruned and trained decoratively, Ixoras, Hibicus, dwarf Bambusa and Acalypha shrubs are to keep the traits of landscape.
UNPLEASING FULL VIEW OF THE RIVER BRAHMAPUTRA

OVERCROWDING TREES BLOCK THE VIEW

VIEWS ON BRAHMAPUTRA
Sketch No. 38

THINING OF PLANTS

Sketch No. 39

LOCATION OF VISTA

THINING OF PLANTS FOR VISTA
Sketch No. 40

ENFRAMEMENT OF VISTA

UNITY BETWEEN SPONGE GRASS AND WAVES OF RIVER

Sketch No. 41

UNITY BETWEEN SPONGE GRASS AND WAVES OF RIVER

ENFRAMEMENT OF VISTA AND UNITY BETWEEN SPONGE GRASS AND WAVES OF RIVER

Plate No. 41
In order to establish a relation of the spot with natural landscape, the unlimited river space is to be organised along with the garden area. Therefore, thinning of existing dense trees is necessary. An alternative arrangement of rows of *Delonix regia* and *Cassia fistula* may be introduced at 8.5m distance. It would be followed by another group of trees viz. *Cassia nodosa* with *Delonix regia* and followed by another scheme of *Jacaranda mimosaeolia* with *Grevillea robusta*. These trees of different volumes, textures and colours like red-orange, yellow, red-rose-pink, blue-violet make a brilliant colour scheme in sequence at the sky line. The thinning would yield sufficient space through which the distant view of the river and Nilachala hill will be clear (Sketch No. 38, Plate No. 40). Further, it would help to establish a vista of Sarighat bridge (Sketch No. 39, Plate No. 40). The gap between trunks and canopy of the trees makes enframe-ment of vista (Sketch No. 40, Plate No. 41). As such the views and vista of the site brings harmony among man-made and natural landscape. Similar principle have also been expressed by Ortloff (1959), Simond (1961) and Robinette (1972) regarding importance of views and vista for integration of natural and man-made landscape in their text. In addition, a few trees like *Salix babylonica* may be introduced on the bank in a random manner towards the water side area. This may bring visual harmony with the hanging branches of trees and running river water. The riversite character may
Sketch No. 42

SITE EXPRESSION ON UNSTABLE CHARACTER

STABLE AND UNSTABLE CHARACTERS

Plate No. 42
be integrated by introducing fine textured weavy sponge grass at the bank. It would prevent erosion of the bank and establish a similar weavy character like river (Sketch No. 41, Plate No. 41). Hedge at Bhagavan park makes a straight horizontal line. Neat—it is Ficus religiosa standing in perpendicular form. According to abstract line expression concept of Simond, (1961) these two plant species together bear a 'Stable' character. But the natural character of the river side is unstable (Sketch No. 42 and 43, Plate No. 42). This frictions of two opposite characters may be avioded to some extent by reshaping the hedge in a concave form or by training trees in inclined position in its early stage (Sketch No. 44, Plate No. 42).

ORNAMENTAL PLANTS OF HILL SIDE AREA, MAHABHAIRAVI TEMPLE TEZPUR:

The Mahabhairavi Temple of Tezpur located at the top of the hill, is surrounded by different species of ornamental plants. According to Simond (1961) and Deber (1969) the essential landscape character of a hill is accentuation of natural form. The natural form of the hill in this site has been preserved and accentuated by planting trees very sucessfully. The trees increase the apparent height of the hill to the fullest extent and thus maintain the mountainous character (Sketch No. 45 and 46, Plate No. 43). It creates a solitary environment suitable for meditation. Simond (1961) again
Sketch No. 45

SITE EXPRESSION OF MAHABHAIRAVI

Sketch No. 46

ORNAMENTAL PLANTS ACCENTUATING MOUNTAINOUS CHARACTER

SITE VIEW OF MAHABHAIRAVI TEMPLE
TEMPLE PATH AS POWERFUL TERMINUS

TEMPLE PATH AS POWERFUL TERMINUS

MAHABHAIHVRI TEMPLE PATH
Sketch No. 48

PROGRESS OF SYMMETRICAL SEQUENCE

Sketch No. 49

Powerful Terminus, the temple at the end point of the axis.

PROGRESS OF SYMMETRICAL SEQUENCE

PROGRESS OF SEQUENCES

Plate No.45
has formulated that when broad base volume is established in contrast with low horizontal forms at the base, it orients man's mind upward along with verticals to the point of infinity which develops sublime and spiritual awe. This character reflects in the temple site from the path, steps, overhead structure called 'Batsowra' and temple architecture. The steps develop horizontal structure at the base, and 'Batsowra' with temple establish a sense of volume that create a strong sublime towards devotion (Sketch No. 48, Plate No. 45). The continuity of the solemn feelings is effective in landscape also. *Polyalthia longifolia*, *P. longifolia* var. Pendula and *Bougainvillea* are found on both sides of the temple path. The *Polyalthia longifolia* spp. are big in relation to temple architecture and other trees and shrubs of the avenue. Similarly, the round form of *Bougainvillea* and arrow form of *Polyalthia longifolia* var. Pendula retreat the sequential progress of path because of their varied size and shape. It consequently diverts the minds of devotees from perfection. Hence, these incongruous trees at the path require elimination. North-west boundary of the temple is full of *Ficus religiosa* and *Eucalyptus citriodora*. *Ficus religiosa* develops into globular form and *Eucalyptus citriodora* has open head free branching architecture. A combination of these two species is not pleasing. Hence, removal of *Eucalyptus citriodora* will be necessary. The north side with thickly planted *Eucalyptus citriodora*, *Terminilia arjuna* and *Eugenia jambolana* makes a jungle. It has no
landscape value but reduces the yard of the temple. The
temple campus is surrounded by old trees viz. Mangifera
indica, Ficus religiosa, Mimusops elengi, Eugenia jambolana
and Artocarpus integrifolia at the boundary line, with a few
on the back side. These voluminous trees separate the temple
site from neighbouring area and make a dark gloomy spot
by their shadow even in daylight, and thereby makes the
environment a catastrophe. Artocarpus integrifolia, Eugenia
jambolana and Mimusops elengi behind the temple serve as
a dark green background to lime-light the temple. Polyalthia
longifolia. Agels marmelos found on the west side, block
western sunrays entering the temple. Further, the leaves
of Aegle marmelos are used in worship. The avenue trees
of temple path may be replaced by conical shaped Thuja
compacta or trained Casuarina equisetifolia at uniform plant
to plant spacing. These plants integrate the temple architecture
and thus creates a progressive sequence (Sketch No. 49, Plate
No. 45). The wood land at the north may be used by eliminating
Eucalyptus citriodora and by thinning Terminalia arjuna.
The boundary may be made more compact by planting terminalia
arjuna. Samanea saman and with a few plants of Spathodea
campanulata as filler. These trees create a perfect enclosure
as to make the temple segregated from a cosmic world.

ORNAMENTAL PLANTS OF RURAL RESIDENTIAL LANDSCAPE, TENGABARI
VILLAGE, AMGURI, SIHBAGAR :

The study area of Tengabari village, Amguri,
Sibsagar is a residential area with multistoried planting design.
These were planted hitherto, basically, only to meet the domestic needs like fruits, vegetables, firewood, and forage etc. other than landscape. Major plants of the area were fruit trees. A few flowering trees and shrubs were planted in front of the house. The *Phyllanthus emblica*, *Grevillea robusta* and *Bauhinea* spp. near the storehouse make inconvenient to establish a 'service area' near the storehouse. This area is very essential for rural landscape for threshing and drying of corn seeds, firewood, cleaning, and repairing of power tiller, cart etc. Therefore, these plants need to be eliminated. The *Mangifera indica* at the block 'C' near the *Bauhinea* affects the garden adversely. Big trees adjacent to the vegetable garden reduce the fertility of soil and make the place very sombre. A big voluminous tree in front of a small house not only tarnish the beauty, but also cannot establish site structure relationship. A pair of *Cocos nucifera* is found near the main entrance along with *Codiaeum*, arching *Bougainvillea* and *Delonix regia*. These plant species exhibit different plant architectures. Tall cylindrical pairs of coconut plant is unpleasing with an umbrella shaped *Delonix regia* and *Bougainvillea* at the main entrance. A few arecanuts are also available at the east boundary. These plants have created an inconvenient situation because of unproportionate in-making it scale in height with other flowering shrubs, hedge, seasonal flowers. A *Litchi chinensis* at the centre of the block 'A' creates a big volume of green mass with other *Mangifera indica* and
Artocarpus integrifolia of the same row. Therefore, the big mass of tree breaks the equilibrium of the site with Delonix regia and Bougainvillea on the opposite side (Sketch No. 30 and 31, Plate No. 36). Hence the removal of Litchi chinesis is important according to visual asymmetrical balance theory of Eckbe (1959), Simond (1961) and Desai (1979) (Sketch No. 32, Plate No. 36). In blocks 'D', 'E', Thuja compacta, Jasminum sambac, Lagerstroemia indica, Nyctanthes arbor-tristis, Ixora singaporensis, Acalypha hispida, Codiaeum variegatum and Clerodendron splendens are planted without considering their relationship with respect to size, flower colour and textural effect of foliage. Further, these shrubs, as a whole, are too big in comparison to the block size. Shrubs are growing freely due to lack of proper care. Big shrubs like Nyctanthes arbor-tristis, Lagerstroemia indica, Tabernaemontana coronaria, and Ixora singaporensis have lost their unity in the midst of small shrubs like Jasminum sambac, Acalypha hispida, Codiaeum variegatum etc. The odd size and shape of shrubs create disorder, confusion, friction (Sketch No. 34, Plate No. 37) and bad taste. Further, from the point of colour scheme also, various colours viz. white from Jasminum sambac, Tabernaemontana coronaria, Nyctanthes arbor-tristis, red orange from Ixora singaporensis, brick colour from Acalypha, red from Clerodendron splendens and pink from Lagerstroemia indica have made the total colour scheme end in a fisco according
to colour theory of Henry (1954), Dibble (1967) and Helen (1980). Therefore, all these shrubs create tension at the main entrance and need to be removed (Sketch No. 33, Plate No. 37).

The pair of Mangifera indica and Artocarpus integrifolia at the south-west corner of block 'A' serve as a background of the house and checks the uncomfortable rays of the descending sun. Arecanut trees are available in the north and south boundary of the plot. These plants make distinct the property line from a distance, view. Delonix regia and arching Bougainvillea enhance the beauty to the entrance by their orange vermilion and red colour.

At first sight, it appears that the area of the house is neither properly planned nor organised. Organization of space according to utility and beauty is the vital character of home landscape. Hence, development of (I) SERVICE AREA (II) OUTDOOR AND FLOWER GARDEN AREA (III) PRIVATE OR BACKYARD AREA (IV) VEGETABLE GARDEN AREA (V) FRUIT GARDEN AREA (VI) AREA FOR DOMESTIC ANIMAL AND BIRDS are essential to keep the modern landscape character. Eckbe (1959), Karmer (1972) and Desai (1979) have also expressed their similar views regarding organization of space in home landscape. A rough plan in organization of space is shown in (Sketch No. 35 and Plate No. 38). The odd looking bamboo fencing at the east side of the boundary line may be replaced by hedge like Duranta repens or Clerodendron inerme. A row of Polyalthia
longifolia var. pendula may be used instead of arecanuts to develop harmony. Tabernaemontana coronaria and ixora singaporensis in blocks 'D' and 'E' may be shifted to the border line at regular intervals. The space between these shrubs may be filled up by seasonal flowers. The central area of the garden may be decorated by a circular shaped seasonal flower bed. The open 'service area' may be enclosed by Hibiscus rosa-sinensis hedge for maintaining privacy. The problem of visual imbalance at the north side of the area may be solved partially by a bright pink coloured Cassia nodosa at the north-east corner.