THE LALBAGH BOTANICAL ILLUSTRATIONS

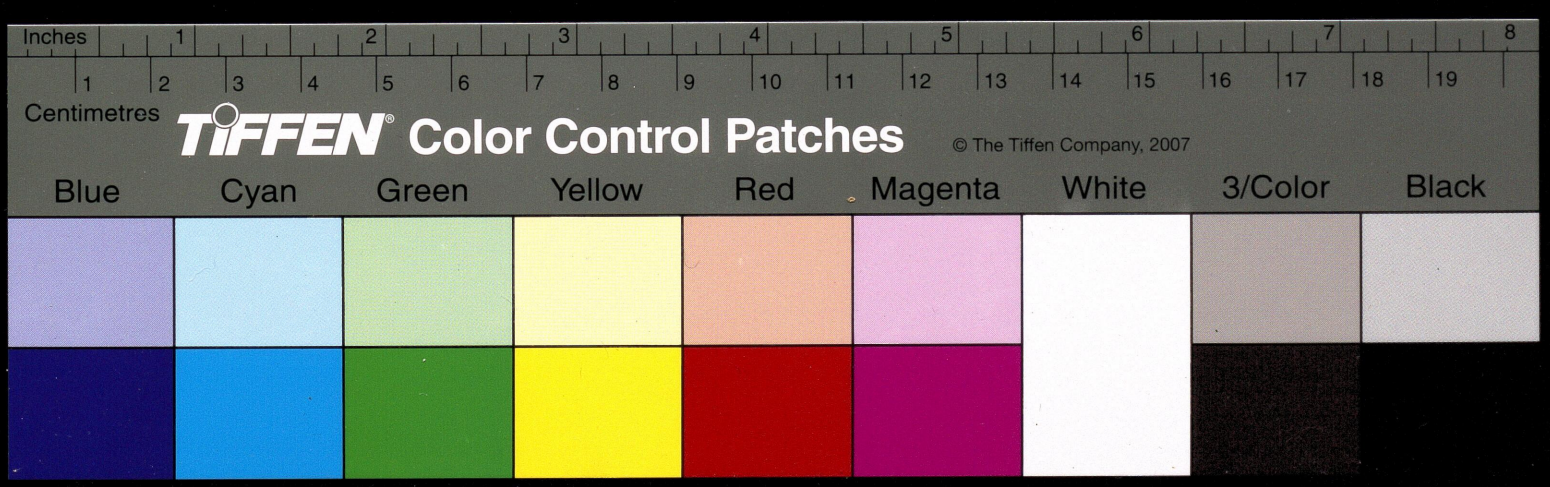
Archival Project Report



ARCH@Srishti

Srishti School of Art, Design & Technology

Bangalore 560106



SECTION 1:

Genesis of Project:

In 2008, BET first discussed with the Department of Horticulture the need to take certain steps for the preservation of the botanical illustrations at Lalbagh. It was mooted that the collection be scrutinized and studied, paintings requiring restoration be identified, all paintings be scanned and an illustrated catalogue produced. Further, an exhibition of these paintings was to be held together with an international conference at Lalbagh that would focus on the illustrations at Lalbagh and those at other centres in India, such as the Botanical Gardens in Calcutta. All the above activities were to lead to the preparation of prints of the botanical illustrations to be made available to the public for purchase.

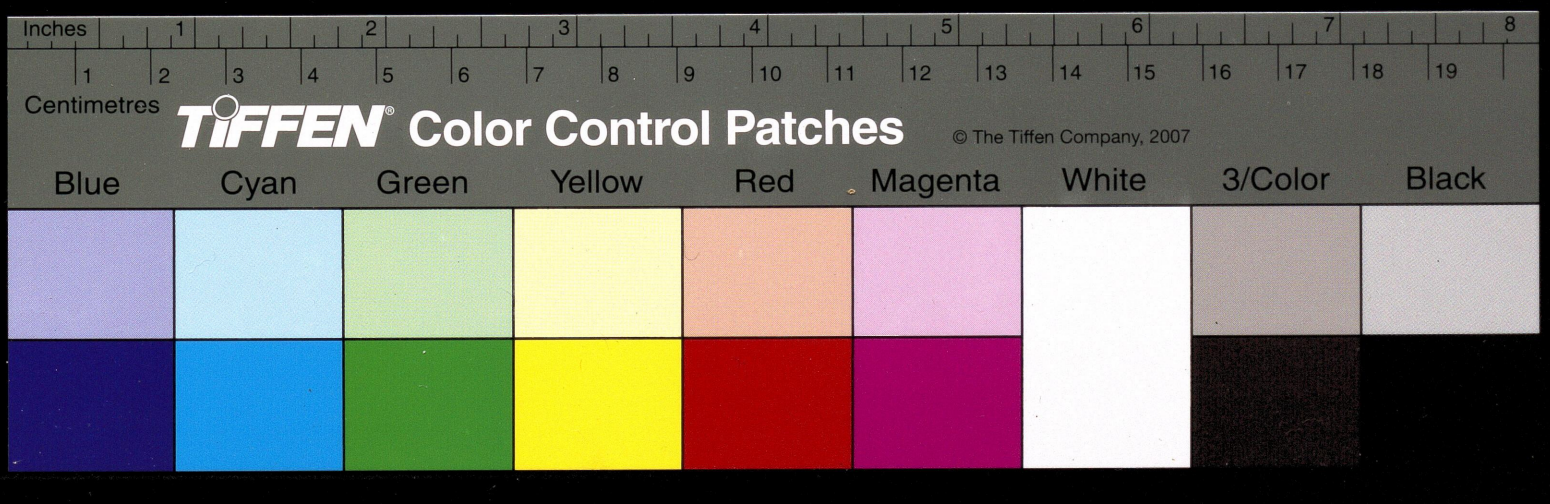
Following further discussion and funds being made available for the project, in March 2011, ARCH@Srishti, an archival consultancy, was contracted by BET to execute the project.

Executive Summary

This project is an initiative of the Bangalore Environmental Trust (BET) for the Department of Horticulture, Government of Karnataka. It aims to evaluate and create an archival catalogue for the botanical illustrations in the collection of the Horticulture Department, Lalbagh Botanical Gardens, Bangalore. The project has been executed by ARCH@Srishti, an archival consultancy.

In Phase I, the condition of the illustrations and the repository in which they are stored will be evaluated. In Phase II, the illustrations will be catalogued. This report is related to Phase I of the project and has been prepared by ARCH@Srishti.

Phase I of the project lasted from 23 March 2011 to 23 April 2011. During this period, the archival team worked primarily on site at the Dr. M. H. Marigowda National Horticultural



Library, Lalbagh Botanical Gardens, with the aims of evaluating the illustrations and their storage, and arriving at an approximate inventory of the collection. The team also surveyed digital scans of selected illustrations to assess their suitability for a digital archive.

There was a significant delay in the scans being made available to the archival team. One hundred and fifty of the original illustrations were also stored at another location and brought to the library only two weeks after the project had commenced. Despite this, the work for Phase I was completed on time.

The major recommendations arising out of this evaluation are as follows:

a) that the storage of the illustrations be made more secure and protective.

b) that the mounts of the illustrations be repaired or redone.

c) that the illustrations be scanned to meet archival standards.

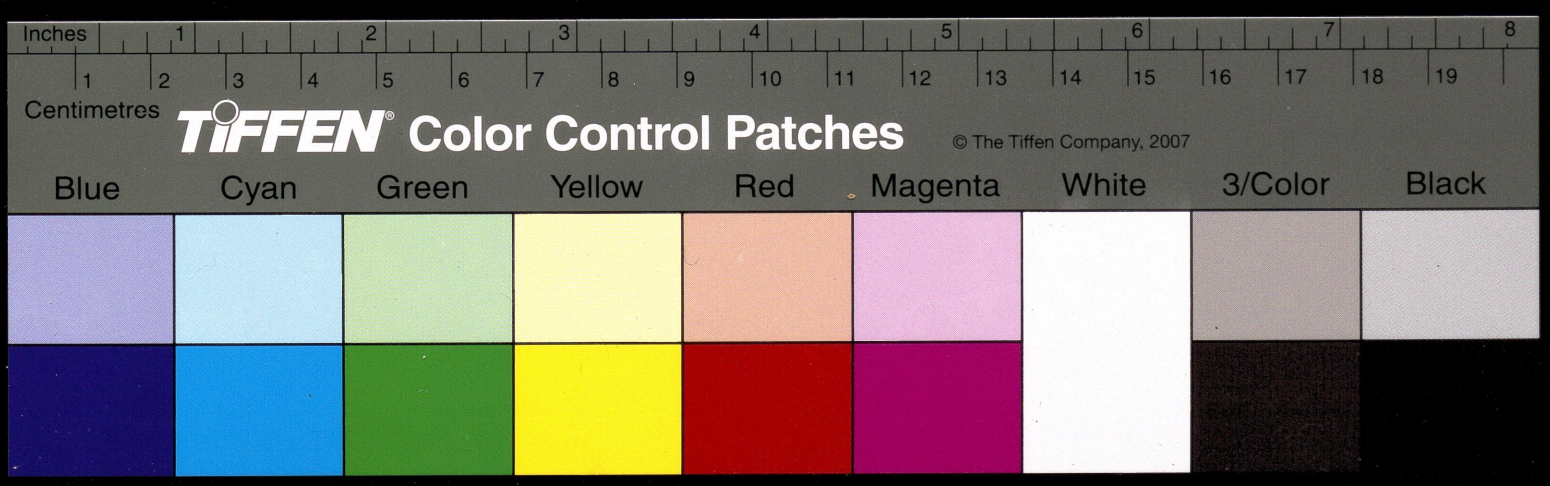
d) that the staff be trained in the care and handling of the illustrations.

e) that a complete catalogue of the illustrations be prepared for reference of the staff and visiting scholars.

f) that access to the original illustrations be restricted but that public awareness be enhanced through publication of a complete illustrated catalogue, establishment of an online digital archive, organization of an exhibition, and sale of prints, as BET has previously suggested.

Introduction:

This report discusses the process and findings involved in Phase 1 of the archival project. This report is divided into five sections. Section 1 presents an executive summary and an introduction to the structure of the report. Section 2 describes the background of the project. Section 3 describes the evaluation undertaken. Section 4 discusses the findings from the evaluation. Section 5 concludes, with recommendations and conclusions.



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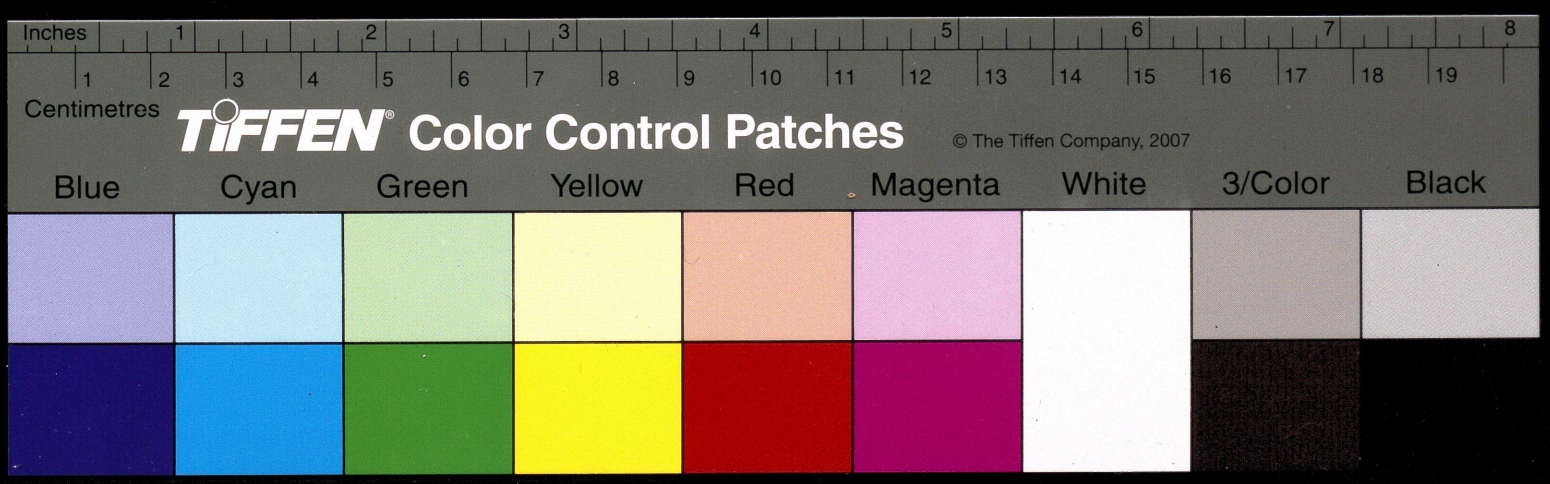

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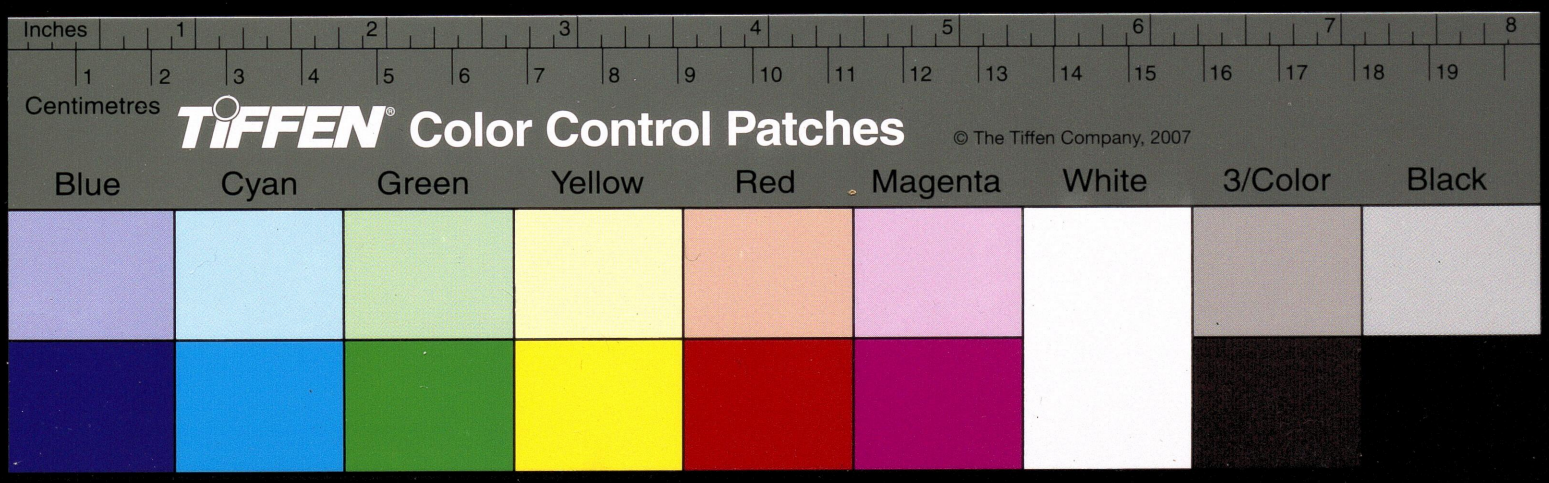


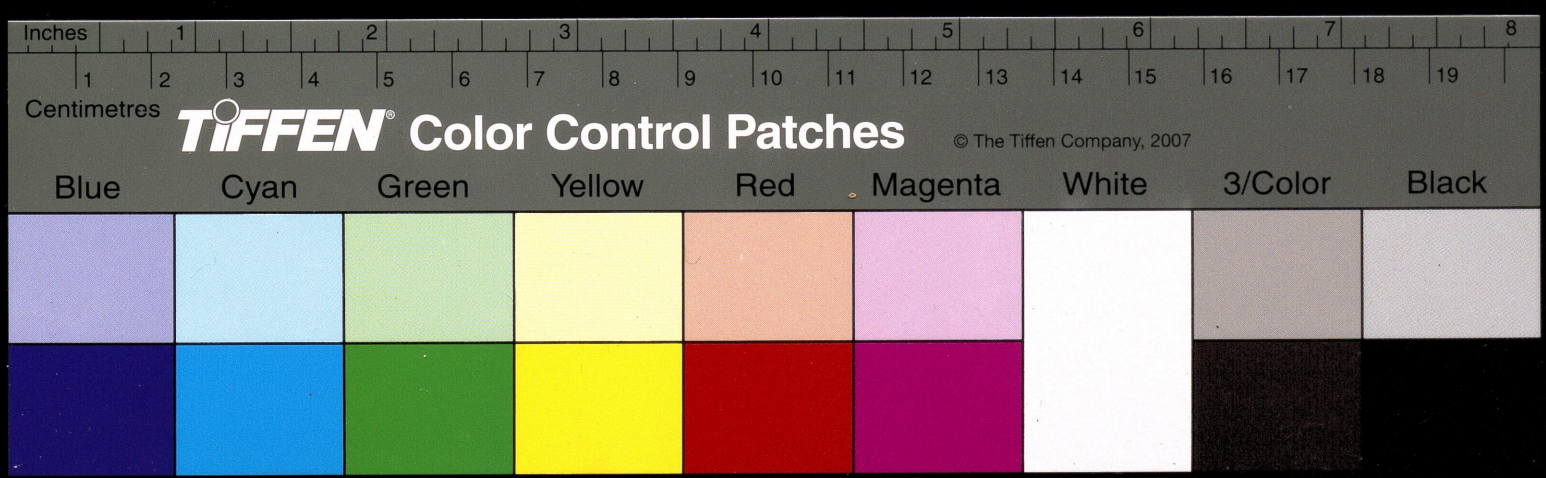
SECTION 2:

Background:

This archival project focused on a collection of illustrations in the possession of the Department of Horticulture, Lalbagh, Bangalore; these are botanical illustrations dating from the late 19th and early 20th century, executed at Lalbagh primarily by K. Cheluviah Raju, under the supervision of John Cameron, a British Superintendent of the botanical garden, though a few other artists are also represented in the collection. The collection includes works executed in watercolor, pencil, and ink as well as some monochromatic prints. These are at present stored in the Dr. M. H. Marigowda National Horticultural Library, Lalbagh, Bangalore. They have never been published or exhibited, although there have been a few scholarly publications about the collection and there is some international awareness of their existence; there is no larger public awareness of this cultural and artistic heritage in the city of Bangalore. This report also recommends modes of dissemination that would be appropriate to celebrate this rich legacy.

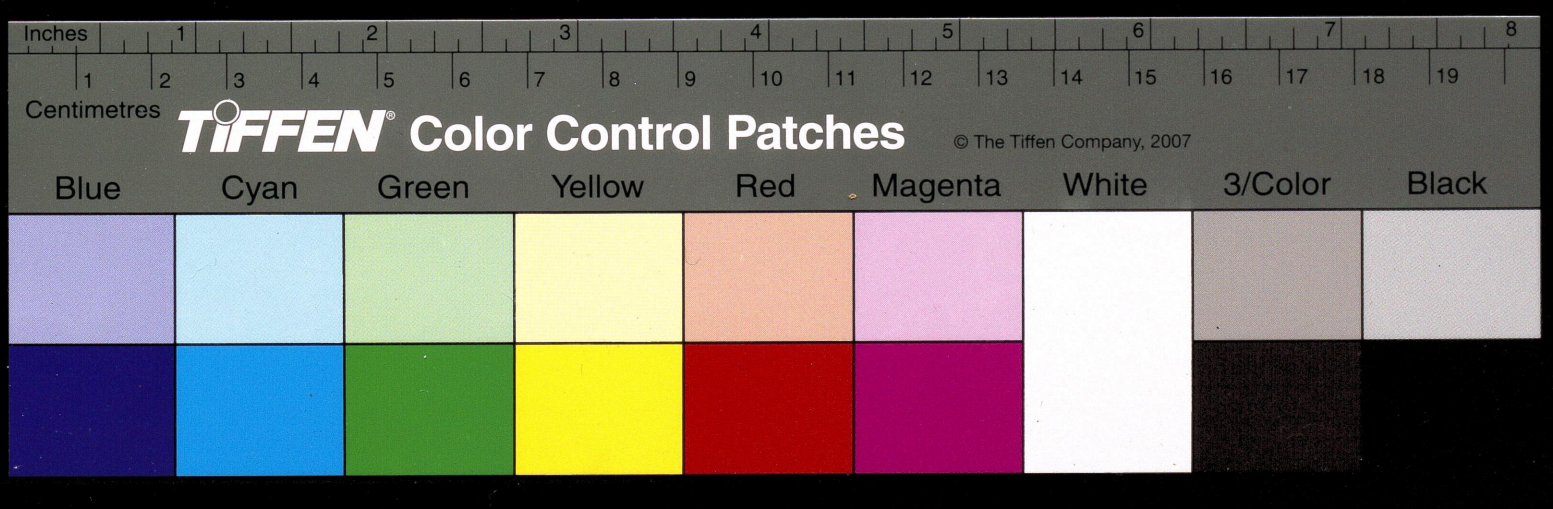
The archival project was undertaken by ARCH@Srishti, commissioned by the Bangalore Environmental Trust acting on behalf of the Department of Horticulture. The project aimed at first evaluating the condition of the illustrations and their storage and then preparing a complete catalogue of the illustrations to aid planning of any further projects around them.

Ms Sanchia deSouza of ARCH@Srishti was the Project Coordinator, reporting to Dr Indira Chowdhury. Two students from Christ College, Bangalore, Mr Ranjith Jacob and Ms Chandni Gadhok, were recruited to work on the project for a period of three weeks and simultaneously learn about the process of archiving. Ms deSouza also received assistance from the staff at the Dr. M. H. Marigowda National Horticultural Library, Lalbagh, in



particular from Mr Ram Kumar, and from the taxonomists, Mr Krishnaraju and Mr Thimmegowda.

This Phase 1 evaluation was conducted in order to gain a preliminary understanding of the condition and number of the botanical illustrations at Lalbagh, the need for restoration or repair work on them, and potential improvements to their storage to ensure preservation for posterity. It also aimed at evaluating the archival quality and number of actual digital scans available at the Horticultural Department of these illustrations. The processes of accessioning and listing the illustrations by name of species, with brief notes on the historical significance of the illustrations, and detailed descriptions of each illustration's condition do not fall within the scope of Phase 1; these will be undertaken in Phase 2.



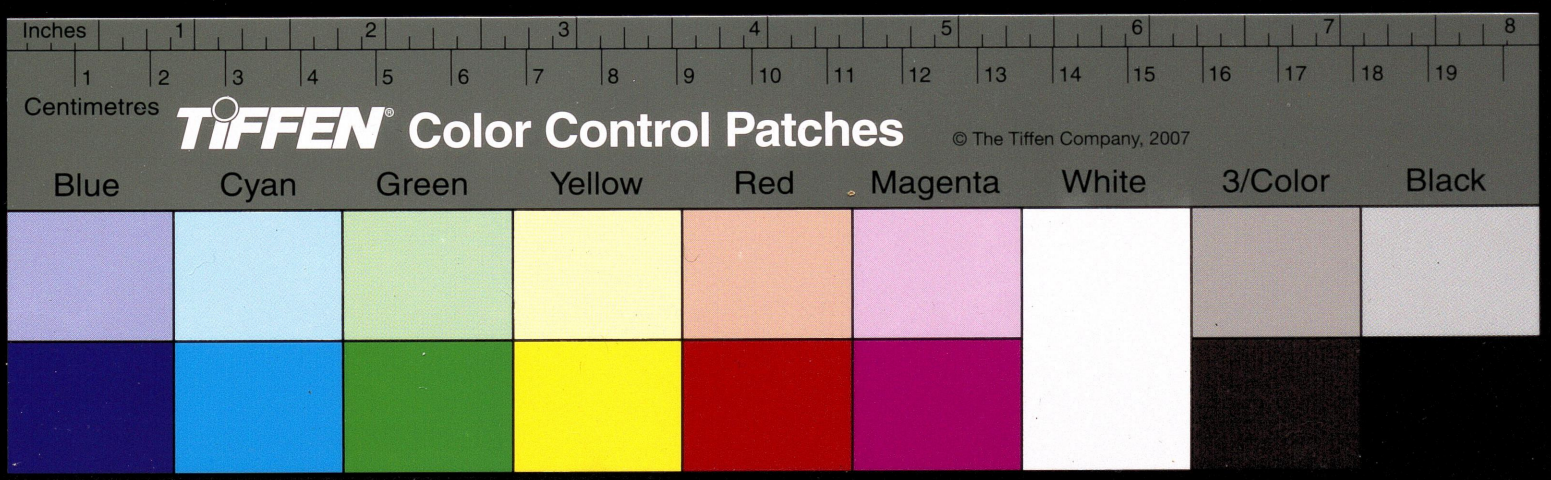
SECTION 3

Description of Evaluation Methods:

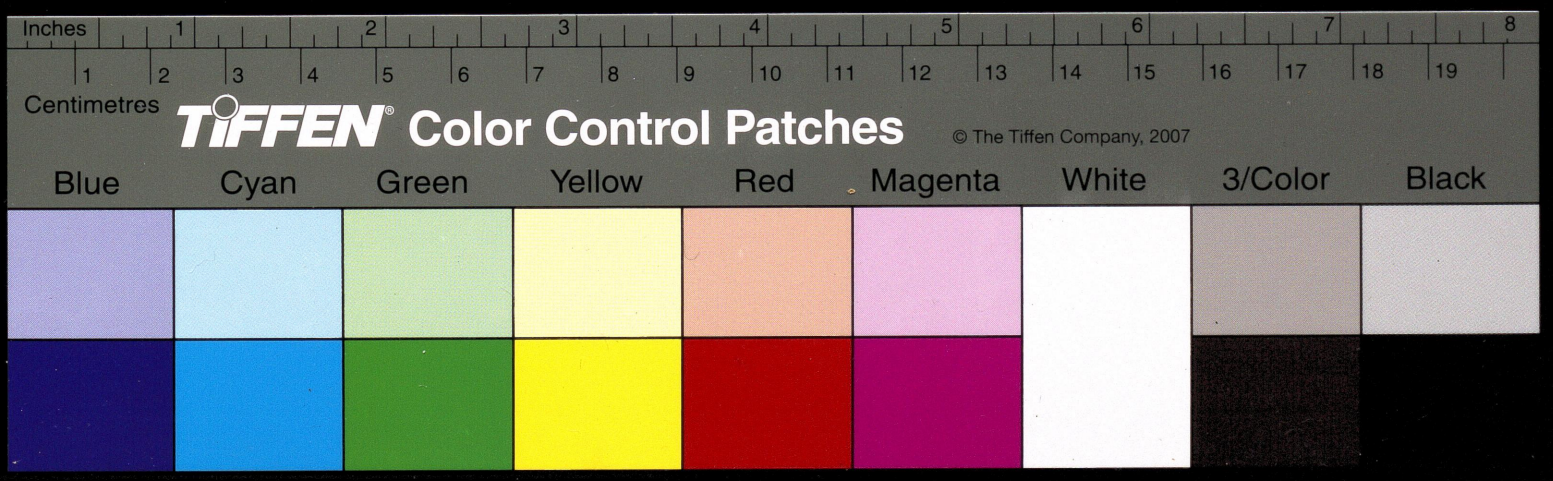
The main purpose of the analysis in Phase 1 was to determine the different kinds of damage or damaging forces the illustrations have been subject to, in order to describe their condition. Although a few preliminary steps in preventive conservation were taken, we seriously feel that these are temporary and do not have any permanent effect. This report recommends a few permanent conservation solutions.

The primary mode of evaluative surveying during this phase was physically examining, sorting and counting the illustrations over a period of three weeks. This entailed taking each illustration out of its cupboard, and individually examining the illustration itself, the mount, and the buffer tissue using a magnifying glass or the naked eye. Illustrations were handled using cotton gloves (and tweezers when necessary) and examined under fluorescent light. Each illustration was dusted with a soft duster after examination. This evaluation also involved surveying the room in which the illustrations were stored and carefully examining the cupboards used for storage. The archivist documented her observations by taking photographs (without flash) and writing notes.

In this phase, the archivist also sorted illustrations based on whether they were damaged or not damaged, titled or untitled, and by medium. This was done in order to arrive at tentative numbers in each category and to classify the illustrations into the various categories. The untitled category was particularly important as the taxonomists would be required to name the species represented. A final count and listing for each category is scheduled for Phase 2 of the project and does not fall within the scope of Phase 1.



Finally, the archivist physically inspected some prints of the scanned illustrations and also inspected all the digital images received from the scanning agency. The scans were also shown to Mr Ajai Narendran (a digital archivist) and Mr Waseem Shaikh (an imaging specialist) at Srishti School of Art, Design and Technology for their professional opinion. Tools within image viewing softwares were used for checking colour balance and for zooming into the image.



SECTION 4

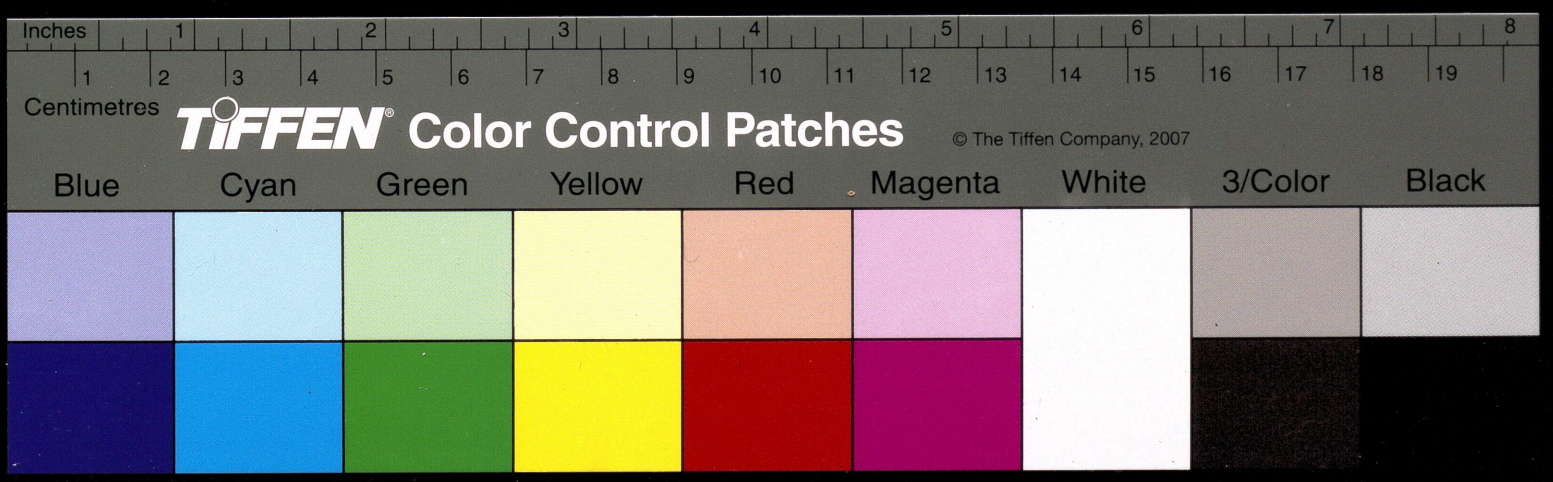
Discussion of Findings:

Survey of Collection

After initial processing and sorting, the archivist arrived at tentative numbers of illustrations in the collection. The collection includes approximately 1020 illustrations. By medium, the illustrations can be sorted into approximately 701 watercolours, 291 pencil sketches, 14 ink drawings and 14 black-and-white lithographic prints. Once the process of assigning accession numbers and cataloguing illustrations is complete (in Phase 2), the exact number of illustrations in each medium will be determined.

The illustrations were also sorted according to whether they had titles or were unnamed. Approximately 210 illustrations were found to be unnamed. Most of these unnamed illustrations were pencil sketches. The taxonomists, Mr Thimmegowda and Mr Krishnaraju, were requested to assist with identification of these illustrations in Phase 2.

Initial surveying of plants represented was also conducted, with a view to understanding how many illustrations were duplicates. The archivist found that, in fact, there were a negligible amount of illustrations (i.e., only two or three) that had exact duplicates in the collection (i.e., the same illustration in the same medium). In several cases, the collection included two to three illustrations of a single plant, but these had obviously been undertaken at different stages of the process of visual documentation by the artist. For example, there could be a pencil sketch of a plant, a watercolour version of the same drawing with a mistake (for instance, fruits missing), and then a final watercolour approved by the artist's supervisor with the mistake corrected (for instance, fruits missing in the earlier version now included). In other cases, there was more than one illustration of a single plant species or fruit, but each illustration depicted a different variety (for instance, more



than 40 varieties of *mangifera indica)*. In yet other cases, there was more than one illustration of the same plant species or fruit and of the same variety, but each illustration was different—undertaken at a different time and with the subject depicted differently. Accordingly, the archivist did not put aside a separate category of duplicates, as this was deemed unnecessary. Complete information on relationships between different illustrations that are apparently duplicates will be included in the final catalogue to be prepared in Phase 2.

Storage

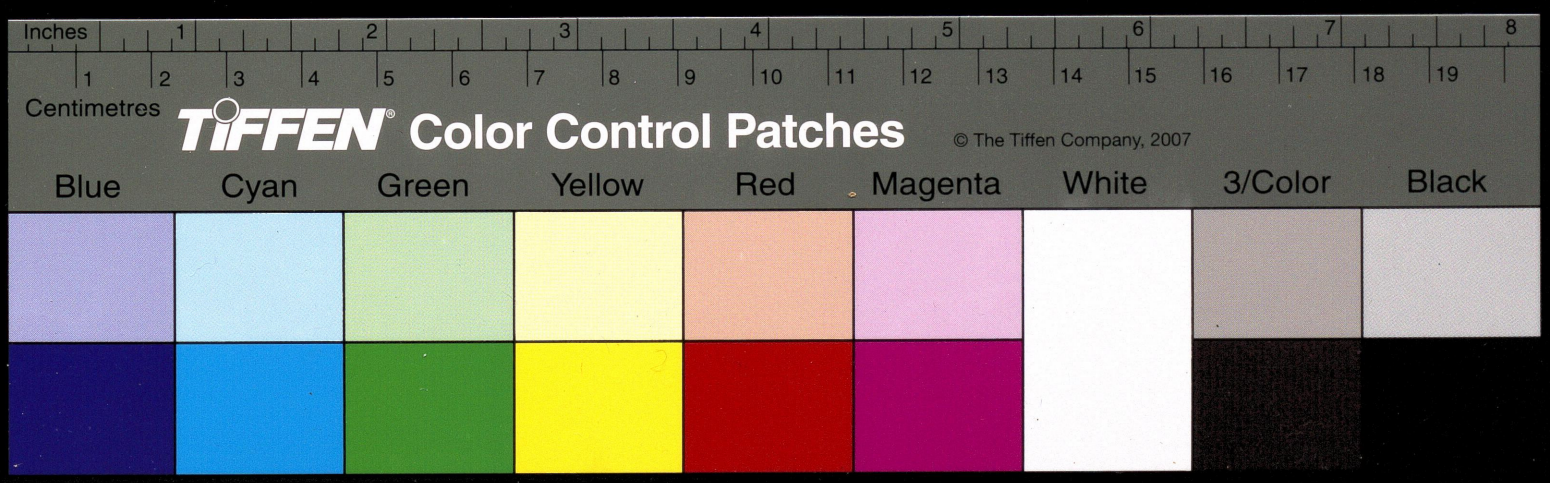
The illustrations are being kept in a room at the Dr. M. H. Marigowda Horticultural Library, Lalbagh Botanical Gardens, Bangalore. The library building was formerly the residence of the superintendents of the botanical garden. It is a colonial bungalow roofed with Mangalore tiles.



Storage room, with windows at the far end and the cupboards to the left.

The room in which the illustrations are stored is at the far end of the bungalow. It serves as a central conduit point for the only access to four other rooms leading off it, and as such has five doorways in total. Three of these adjacent rooms are used for storage while the fourth is used as a lunch space and has an attached toilet.

The storage room is about 16 feet by 13 feet in size, with a floor of red oxide. It has a false ceiling of board. The wall at the far end of the room is also the external wall of the building.



This wall has a series of windows that extend for about 12 feet. The walls below and next to the windows have suffered considerable damage due to damp.

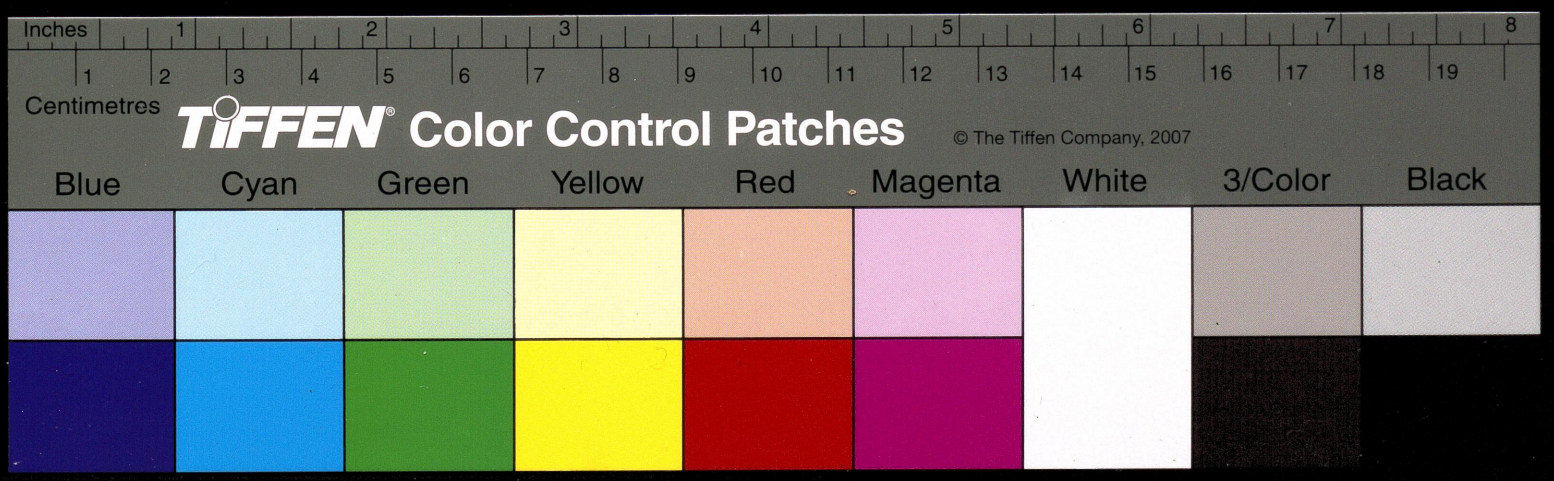
The windows have iron bars, a wire mesh with large holes, and another mesh with finer holes, while the panes contain glass. The wire mesh with finer holes is only present in patches – most of it has come off. The glass panes have also been damaged, with one of them broken and cracked. At present, the conditions of storage are far from ideal. The windows and their state of disrepair indicate that there is too much exposure to the elements.

This survey was conducted during the month of April 2011. At the end of the month, there was heavy rain over several days. After this rain, no severe leaks were observed in the storage room. There is minor leakage immediately adjacent to the windows as seen from water stains on the false ceiling in that location. However, the room immediately adjacent was found to be full of water, to a depth of about one centimetre. As such, it is evident that the building itself is prone to leaks; the high levels of moisture can result in fungal growth on the illustrations. In addition, the library maintenance staff did not immediately drain the room that had suffered from leaks and the collected water was only removed after a few days. Such delays in removing sources of excess moisture from the environment of the illustrations are detrimental to them.



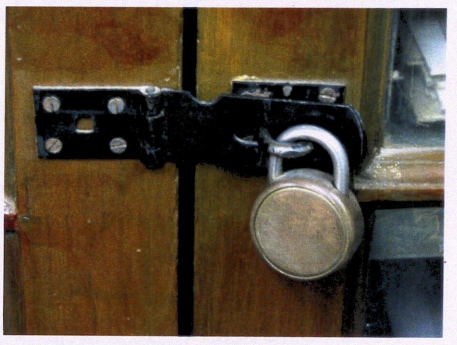
Damage to the wall nearest the window, from damp.

In sum, the room used for storage is too exposed to the vagaries of the elements and too much of a thoroughfare to be a suitable archival space for the illustrations.



The illustrations are stored in three cupboards along two walls of the room (neither of these are external walls of the building). Two of these cupboards are of wood with glass panes in their doors, while the third is of steel with glass panes in its doors. The proximity of the windows to the cupboards and the glass panes in the cupboard doors leave the illustrations exposed to too much light, which is detrimental to them in the long run.

The first wooden cupboard (Cupboard 1), kept near the main entry door of the room, was found to be unsuitable for storage. To begin with, there is a wide gap between the doors of the cupboard when closed and there is also a gap between each door and the side of the cupboard to which it is attached with a hinge.



Lock on Cupboard 1 with gap between the closed doors visible.



Cupboard 1—glass pane replaced with piece of cardboard.

Further, one glass pane was missing; it had been replaced with a piece of cardboard stuck with sellotape to the door. This compromises the security and safety of the drawings.

In addition, on the inside of the doors, there had been some attempt at sealing the gaps around the glass panes using plaster of ₱ Paris or white cement. This had been done some time ago, so the white cement is presently flaking off and disintegrating, falling into the cupboard and onto the illustrations.



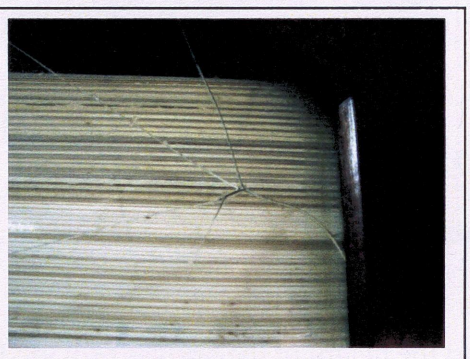
Door of Cupboard 1, inside view, plaster of paris sealant flaking off.

Inches 1 2 3 4 5 6 7 8
Centimetres 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
TIFFEN® Color Control Patches © The Tiffen Company, 2007
Blue Cyan Green Yellow Red Magenta White 3/Color Black



View of Cupboard 1 (directly opposite the camera) from the outside.

Finally, the wood of the cupboard shelves also had suffered some damage; it smelled particularly musty and seemed to have had an attack of wood borers at some point. While some shelves had been replaced with board, the older shelves that remained and the wooden structure of the cupboard give off a fine dust. Some attempt at containing the dust from the old shelves had been made, as the shelves were lined with gift-wrapping paper and thick plastic sheets. However, the plastic sheets, when taken out, were found to be covered with a thick layer of dust and had not been cleaned in a while.



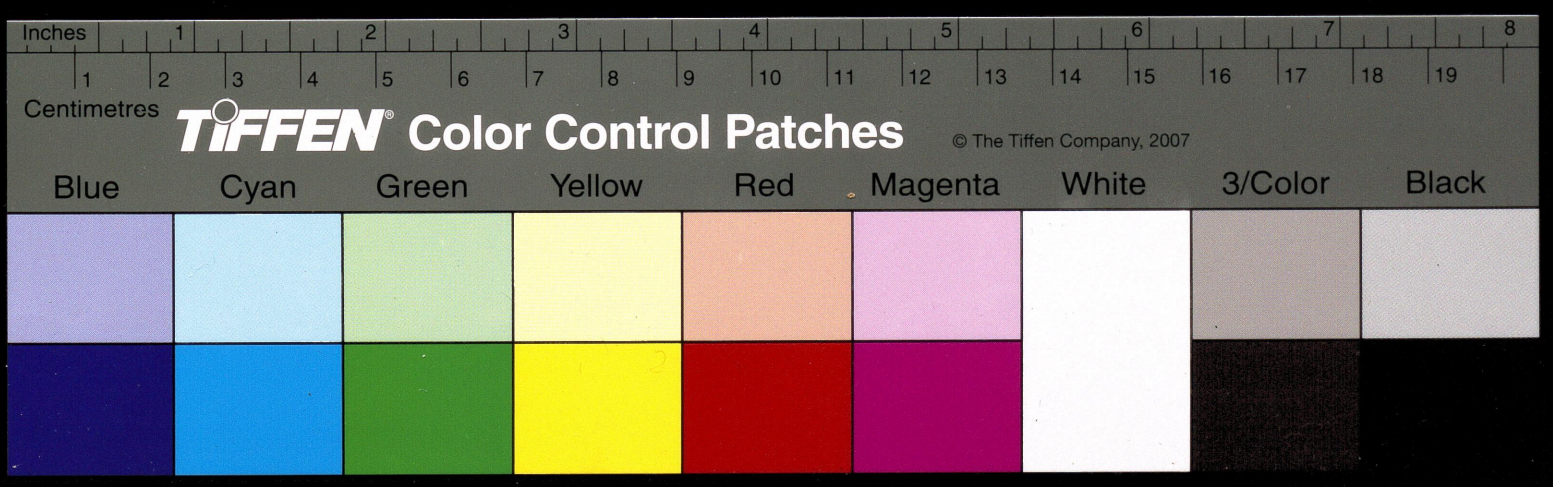
Cupboard 2, cracked glass pane.

The second wooden cupboard (Cupboard 2), kept near the end of the room, perpendicular to the windows, was also not airtight; again, there were gaps between the doors when closed and between the doors and the main cupboard. Additionally, one of the glass panes was cracked. The shelves had been lined with newspaper that had collected a lot of dust.



Botanical illustrations stored alongside other papers and equipment in Cupboard 3.

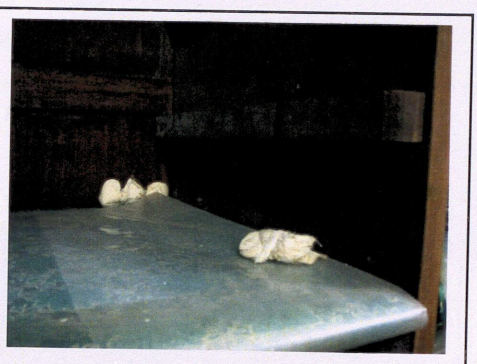
The steel cupboard (Cupboard 3) was found to be quite airtight and when closed, no gaps were found between the doors. However, the illustrations in this cupboard were stored alongside other equipment and papers, which compromises the safety of the illustrations as the cupboards will often be opened for accessing the other material. Furthermore, the storage space is not conducive or safe for



storing archival material such as the paintings when it is shared with non-archival material.

The effects of having cupboards that are not adequately sealed are quite visible when looking at the illustrations. Those kept in Cupboard 2, which is near the windows and the damp-damaged external wall of the building, show signs of fungus attacks on their mounts and significant staining from damp on the mounts. Additionally, illustrations kept in both wooden cupboards (1 and 2) show damage done by silverfish (on the illustration itself). Also, dead insects were found between the mount boards.

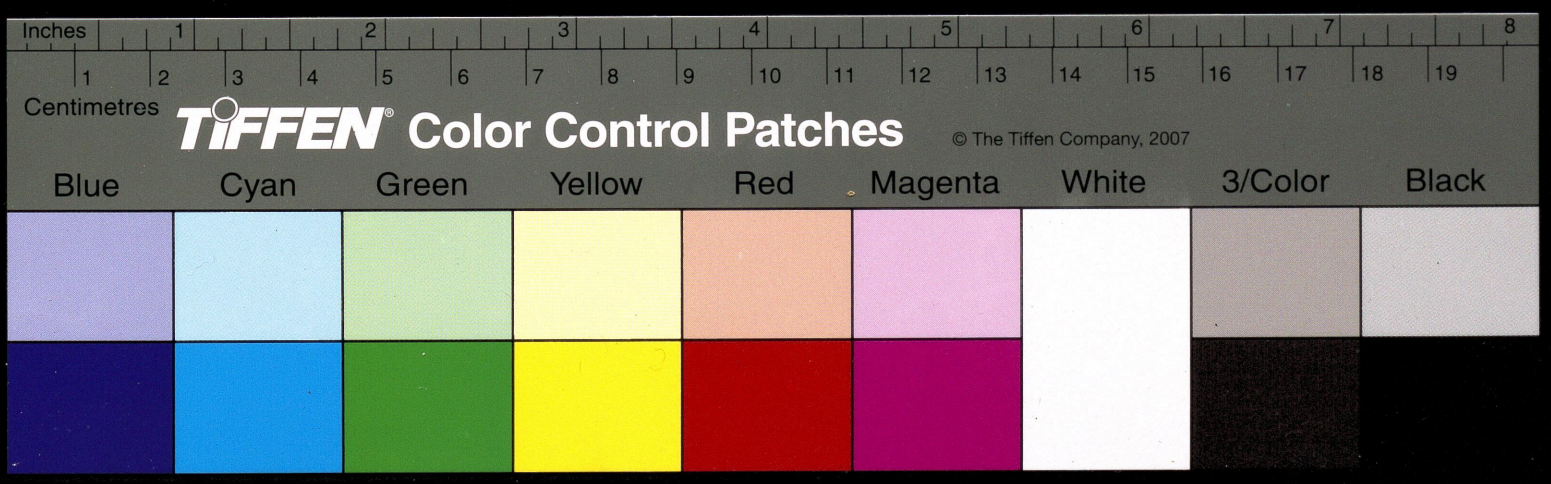
In the Cupboard 1, the archivist found several small cloth bundles and on enquiry, realized that the bundles had contained some sort of insect repellent. However, on opening, the bundles were found to be empty. This suggests that some attempt had been made at keeping insects away from the paintings, but it was not a sustained effort.



Cupboard 1. Bundles formerly containing an insect repellent.

The archivist observed that, due to space constraints and the height of the shelves provided for storage, it is necessary to store the illustrations in piles of at least 30-40, and sometimes up to 60. As the illustrations are all mounted and the mount board is heavy, this results in a great pressure of weight on the lower illustrations in each pile. Such sustained pressure will also result in more rapid deterioration in the illustrations' condition.

Finally, the archivist observed that the library building was infested with rats; this observation was corroborated by the library staff. Rats pose a great threat to these precious and irreplaceable illustrations. In addition, should these pests have any access to electrical wires, it could amount to a serious fire hazard that could potentially threaten both the illustrations and the books kept in the library, as well as the building itself.



Immediate steps taken to improve storage:

After observing the condition of the room and the cupboards, the archivists requested the help of Mr Ram Kumar to clean the shelves and provide a more protected and safe storage environment for the illustrations.



Cupboard 1, during cleaning and rearrangement.

1) The shelves of all cupboards were dusted and stripped of the paper covering them, and the glass panes in the cupboard doors were cleaned.

2) The cupboards were aired for 2-3 hours.

3) Then the shelves were lined with acid-free blotting paper and naphthalene balls were laid in the corners, for temporary protection against insect attacks.



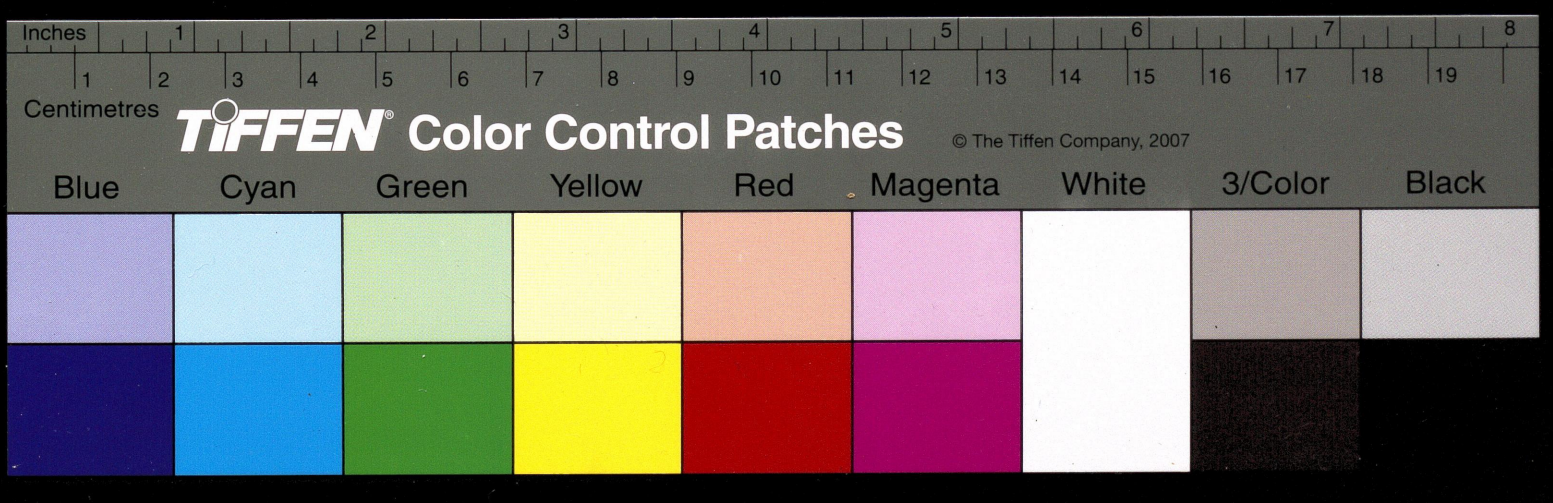
Cupboard 3, after cleaning and rearrangement.

4) Equipment and papers stored along with the illustrations (in Cupboard 3) were moved elsewhere, with the cooperation of the staff concerned.

5) Finally, the illustrations themselves were dusted individually with a soft duster before being replaced on the shelves.

Damage to Illustrations

During the process of initial sorting and examination, approximately 750 illustrations (and their mounts) were identified as damaged. The final catalogue will include information on



the exact condition of each illustration, i.e. exactly which illustrations are damaged and in what ways.

In terms of damage to illustrations themselves, three kinds of damage were noted: (a) damage done by insects (b) damage done by human error (c) damage due to staining.



Dead insect found between mount boards.

Damage by insects was noted most often on the paintings, as opposed to the illustrations executed using other media. In a few cases, dead insects were found between the mount boards. No visible eggs were found on any illustration/mount, though it must be noted that eggs may be too small to see easily with even a magnifying glass.

The major damage was done in terms of silverfish eating holes through the paper. In some cases, these holes were minuscule; while in others they were larger (around one centimetre across). Fortunately, in no case was there any damage to a painting that significantly obscured anything written on it or made it impossible to see a part of the painting. However, the damage seen must serve as a warning that the paintings need continuous efforts to preserve them in their current state and avoid any further damage.



Damage done by silverfish.



Damage done by silverfish.

Inches 1 2 3 4 5 6 7 8
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Centimetres
TIFFEN® Color Control Patches © The Tiffen Company, 2007
Blue Cyan Green Yellow Red Magenta White 3/Color Black

Damage from staining was noted on a large number of paintings. In most cases, this damage was from acid in the paper leaching out and producing acid spotting (brown stains on the paper). In some cases, acid had stained the paintings around certain elements executed in watercolour. This suggests either that acid was being given off by the paint used or that some chemical reaction between the acid and the paint was leading to acid being deposited immediately adjacent to the paint.



Acid staining on the paper.



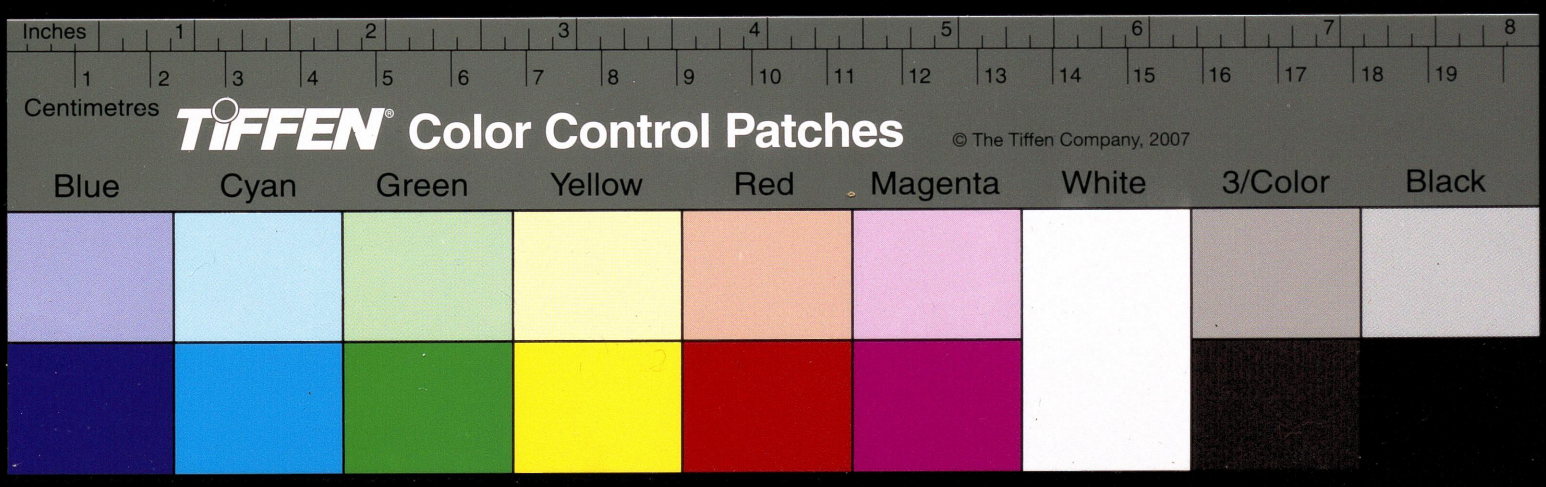
Acid staining the paper and the buffer tissue. The shapes of the stains correspond.



Sellotape used to fix illustration on the mount board.

Damage from human error was noted on two or three paintings. This had occurred because paintings that had become detached from the mount (due to the fastening hinges being torn) had been reaffixed using sellotape. This is a serious issue as the sellotape cannot easily be removed from the paintings and can, if left on the illustrations, cause serious staining damage to the paintings in the long run.

In addition, damage from water was noted on a few illustrations, as also fold marks, rust marks from drawing pins, and tearing. However, this damage seems to have taken place



earlier, prior to the illustrations being put on the current mounts. Tears had, in several cases, been repaired using Japanese tissue paper and frayed edges of the paper reinforced using the same Japanese tissue paper.

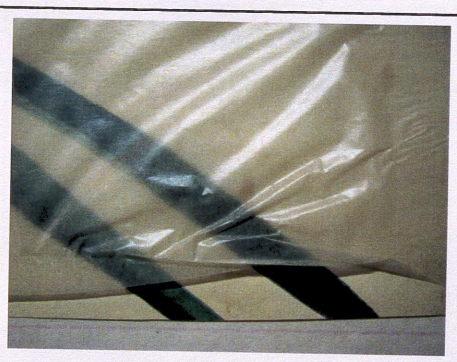
Damage to the mounts and repair materials was also noted. This accounts for the majority of the damage seen. This damage is a matter of great concern, as the mounts are supposed to protect the illustrations; certain kinds of damage to the mounts will, in the long run, also affect the illustrations and result in their damage.

A significant number of mounts had come apart at the hinges, the two pieces of museum board thus getting separated; this was due to the hinges tearing or losing their adhesive. Having these two pieces of museum board separate from each other means that, when handling the illustrations, both the buffer tissue and the illustrations themselves are vulnerable to damage from crumpling or folding.

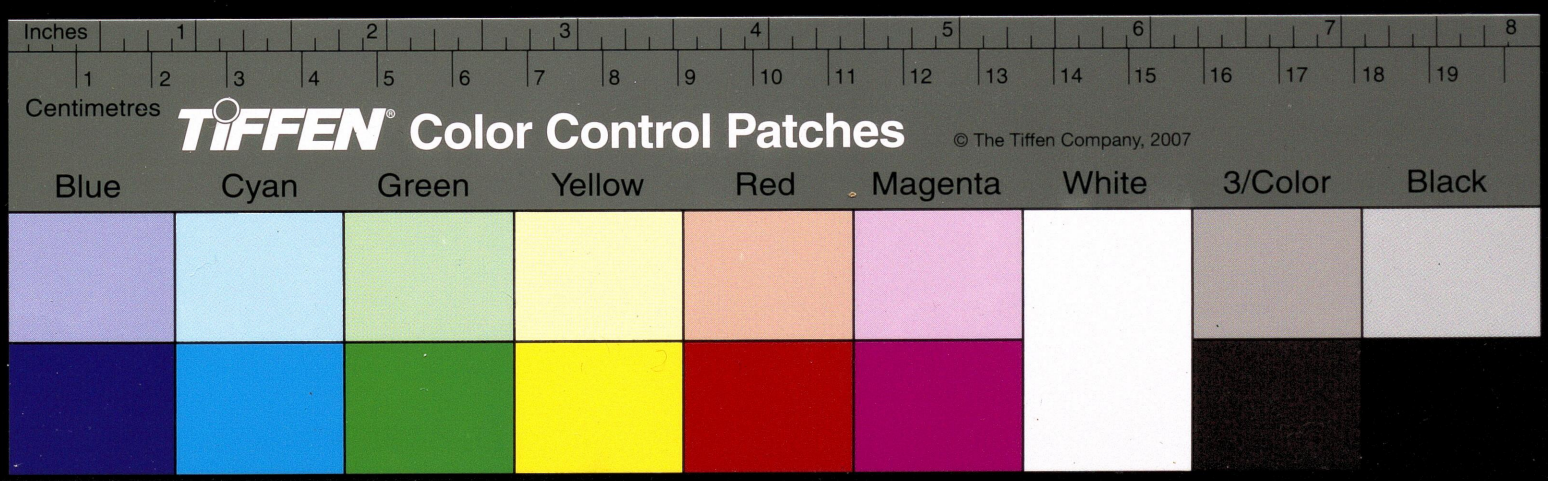


Front and back mount boards separated due to loss of hinge adhesive.

Further, a number of the buffer tissues present were badly crumpled; in some cases, they had crumpled to the extent of exposing the illustration itself. Some had become detached from the mounts, making them prone to falling out and leaving the illustration exposed. In several cases, the buffer tissues were missing, suggesting that they had fallen out at an earlier date.



Crumpled buffer tissue paper, exposing illustration.



A number of the illustrations had become detached/semi-detached from the mounting board. This was due to tearing of the fasteners or loss of adhesive on them. As such, a number of illustrations were found to be simply reposing between the mount boards, making them greatly prone to falling out or getting lost.



Acid staining on buffer tissue. Staining on the illustration is considerably less, suggesting that the acid has migrated from buffer to illustration.

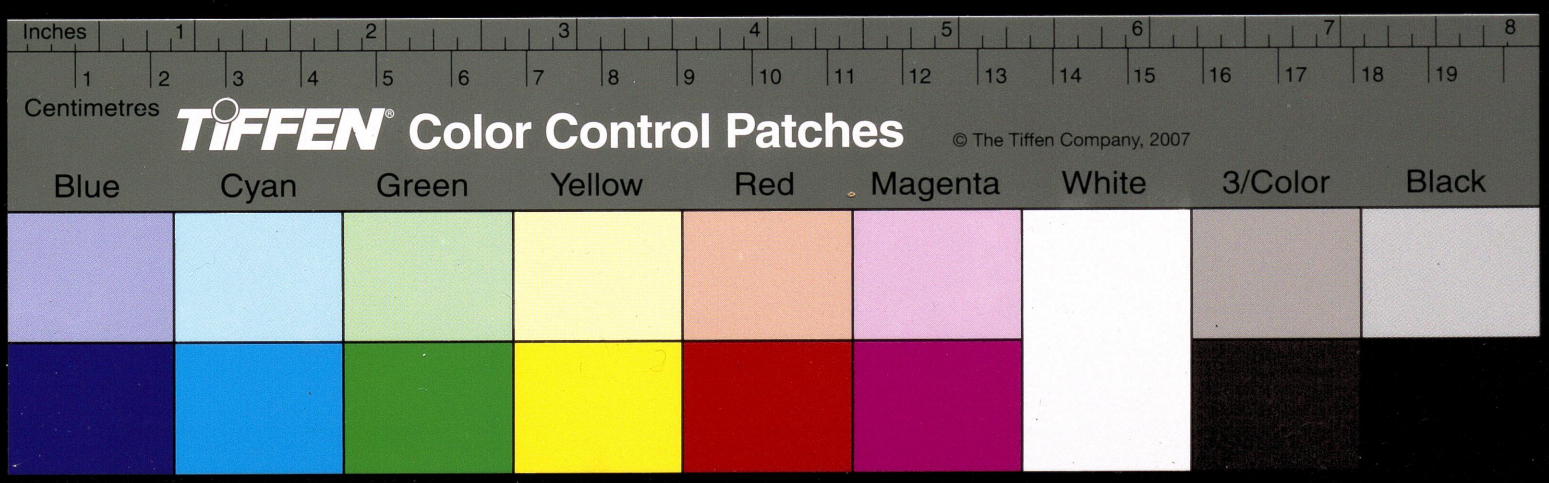
Acid damage was also seen on buffer tissues and the Japanese tissue paper used for fixing and repairs. In the case of the buffer tissue, this damage was usually corresponding in location to acid damage of the illustration below.

In some cases, the buffer tissue was stained in the exact rectangular shape of the illustration below it. In a few other cases, the buffer tissue was stained from acid with no stain below on the painting. It is clear from all of these observations that the tissue used is not of archival quality (i.e., acid-free). Thus, it is imperative to change the buffer tissue to avoid any acid travelling from it to the illustration.

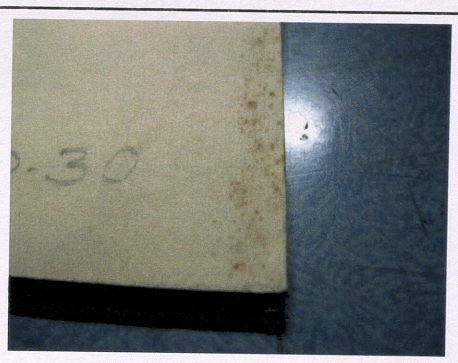
Similarly, in some cases, the fasteners fixing the illustrations to the mounts and the tissue paper used for repair were found to be stained with acid. It is imperative to change these, as the acid could travel to the illustrations and damage them. The buffer tissue paper



Fastener fixing illustration to mount. Acic staining clearly visible.



has already been stained with acid from the fasteners, in several cases.



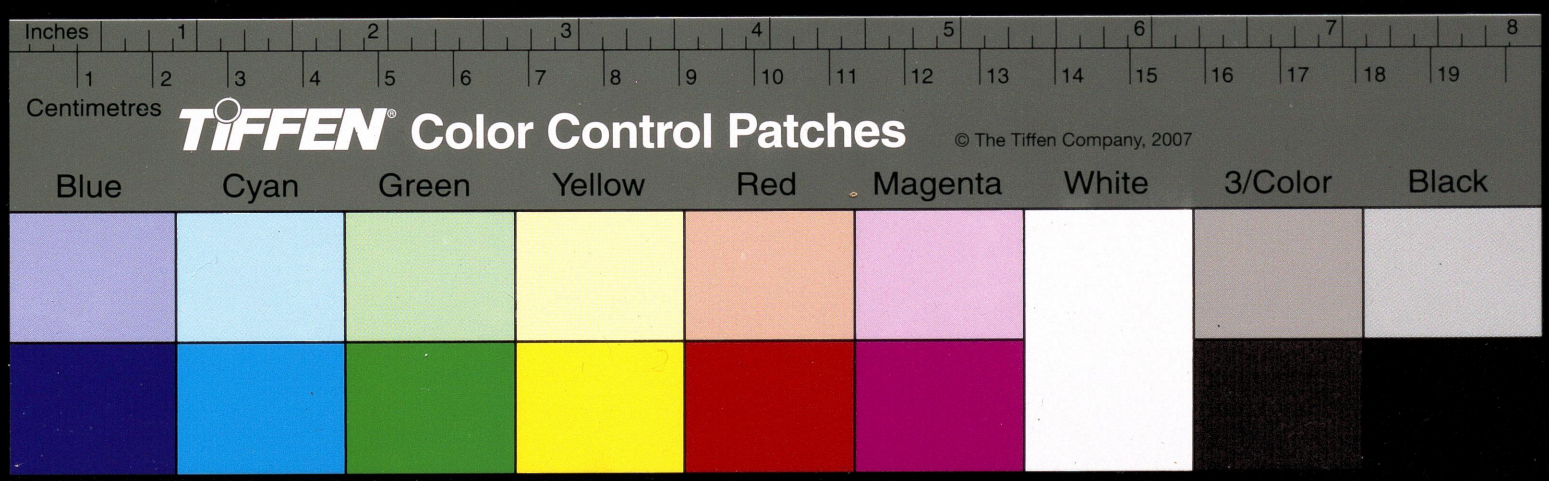
Staining from exposure and fungus infestation, on edge of mount board.

Several of the mounts of illustrations kept in Cupboard 2 were stained severely on their edges from damp, exposure and prior fungus infestations. These had left stains in the form of small dots on the surface of the mount, towards the edge of the board. This indicates significant problems with dampness affecting the illustrations stored in that cupboard.

Scans

The archivist was also responsible for inspecting the scans done of selected illustrations (650 in number) and determining their value for use in a digital archive. There was some delay in procuring the scans as the scanning agency had delayed delivery of the digital image files. Once the scans had been made available on a DVD, the archivist physically inspected some prints of the scanned images and also inspected all the digital images. The scans were also shown to Mr Ajai Narendran (a digital archivist) and Mr Waseem Shaikh (an imaging specialist) at Srishti School of Art, Design and Technology for their professional opinion.

While attempting to sort the scanned images and to check them against the list of illustrations sent for scanning, the archivist realized that all the scans had not been delivered. The DVD containing the scans held 521 image files. However, more than 100 of these were found to be duplicates of scans. The DVD contains scans of only 405 illustrations; as such, scans of nearly 250 illustrations have not been delivered by the scanning agency. That is to say, while they may have been delivered in the form of prints in an album, they have not been delivered in digital format. The archivist informed the Directorate of



Horticulture of this problem and also submitted a list of missing scans to Deputy Director Mr Krishnappa, for the consideration and action of the Directorate.

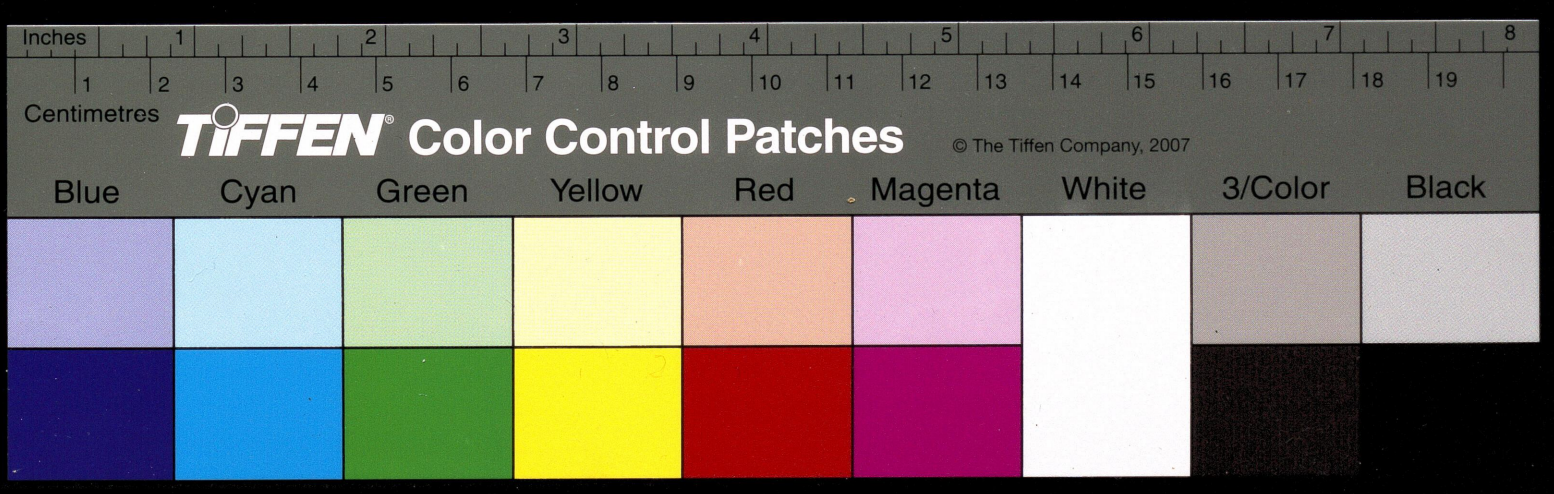
On inspecting the scans, the archivists noted two problems; one, the colours on the scans did not match those on the illustrations themselves, and two, the fine details on the illustrations, such as the fibres on a plant stem, were blurred on the scans.

One reason for these problems is that the scans were not done keeping archival standards in mind, i.e., the need to keep a copy simulating the original in its existing condition as exactly as possible. With age, the paper on which the illustrations have been executed has turned yellowish-brown. However, the background on most of the scans was bluish-white. Mr Narendran and Mr Shaikh deduced that the scanning agency had performed some automatic colour-correction on the scanned images, with the aim of whitening and "cleaning up" the scanned images. However, this process has resulted in the colour balance of each image being upset, making the paint colours far brighter and the contrast starker than in the original illustrations, and the scanned copies therefore inauthentic.

Mr Narendran also pointed out that the resolution of the images (300 dpi) was insufficient given the size of each illustration, and therefore the scans are not able to capture the level of fine detail executed by the artist in his work. An archival scan of this size of illustration needs to have a resolution of 600 dpi or higher. Thus, the scans cannot be deemed to be of archival quality. Furthermore, these scans will not be useful should the Horticultural Department wish to hold an exhibition of the illustrations.

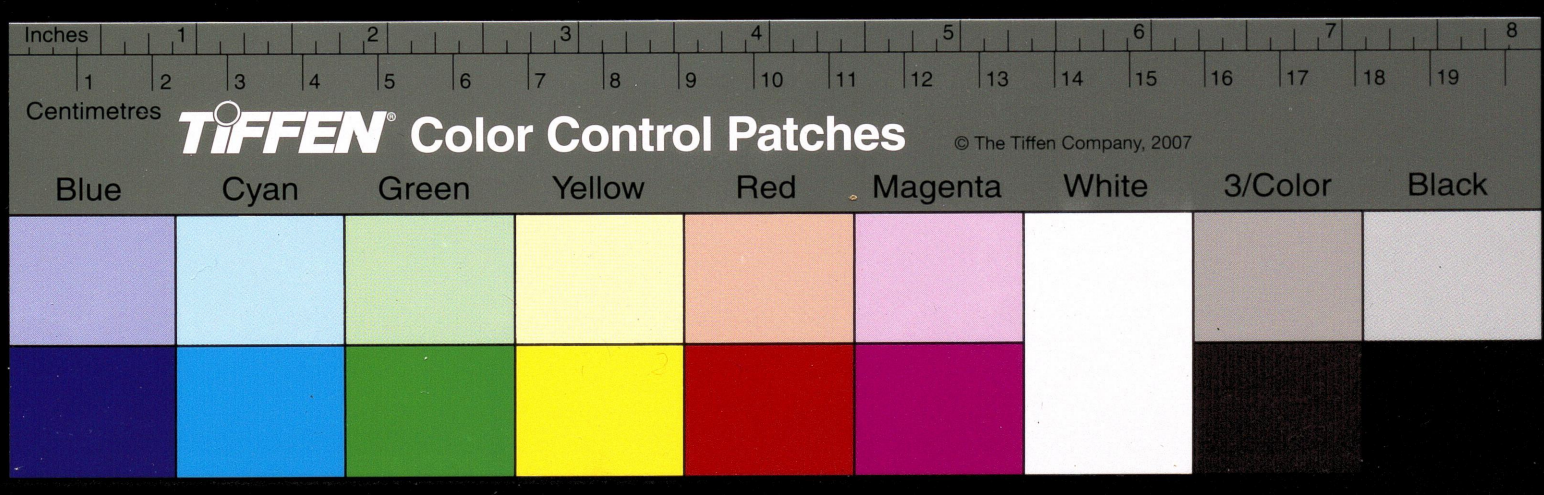
Further, the scans had been saved in the .jpeg format, which is not appropriate for archival purposes. Digital archives require images in .tiff format.

Additionally, during examination of the illustrations, the archivist noticed that in some cases, the scribbled notes made in pencil on the front of the illustration continued to the back



of the sheet of paper. However, as this was probably not noted prior to submitting the illustrations for scanning, the scans are of the front surface only. A complete archive will require scans representing all the notes made on the illustrations, front and back.

Mr Narendran noted in conclusion that the .jpeg format does not store information about touching-up processes executed on an image; therefore, it would not be possible to easily reverse any such processes and view the scans in their original form. Mr Shaikh also commented that any reversal of the colour-correction processes would have to be done by adjusting the colour contrast and saturation manually, which would be a resource-intensive task. He recommended that the illustrations be scanned again to meet archival standards.



SECTION 5

Conclusions and Recommendations:

Conclusions:

1) Many of the botanical illustrations do need restoration and all of them require better protection and mounting.

2) The storage of the illustrations, in terms of both the room and the repository, is unsuitable and leaves them prone to damage and deterioration.

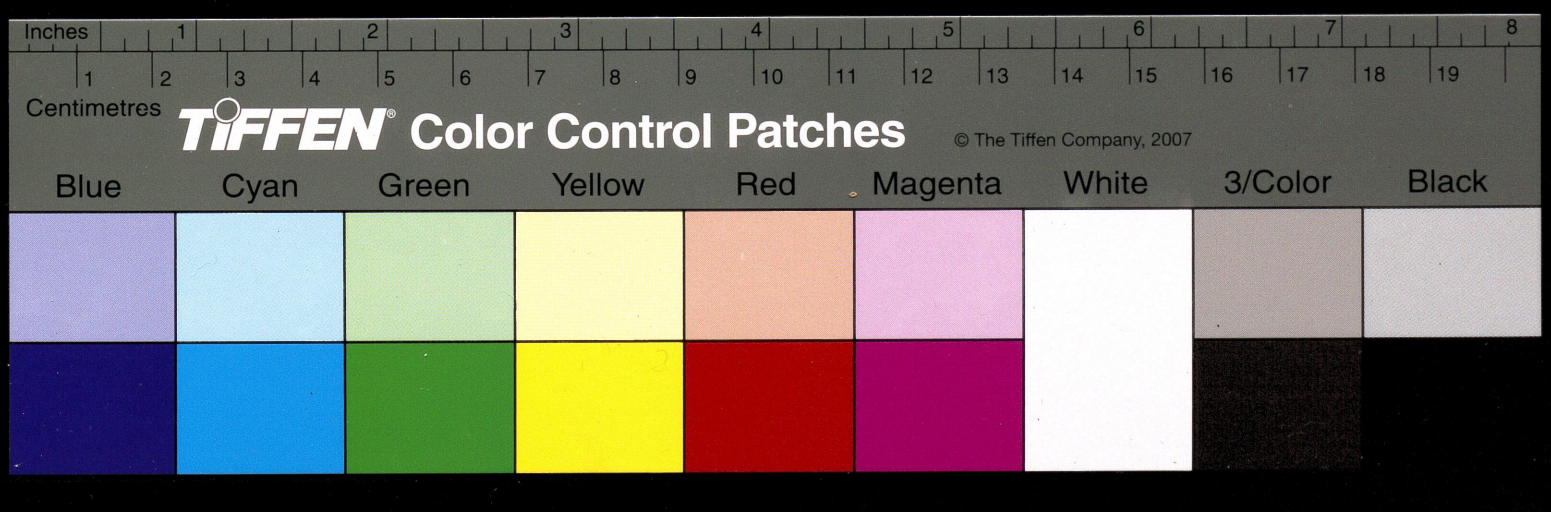
3) The lack of a complete list of illustrations is also a security hazard and results in a lack of awareness of what illustrations are actually in the collection.

4) The scans done are not of archival quality as they do not simulate the illustrations in their present condition.

5) The library and other staff that will be caring for and frequently handling the illustrations require some basic training and supervision to maintain them and prevent any further damage to the illustrations.

Recommendations:

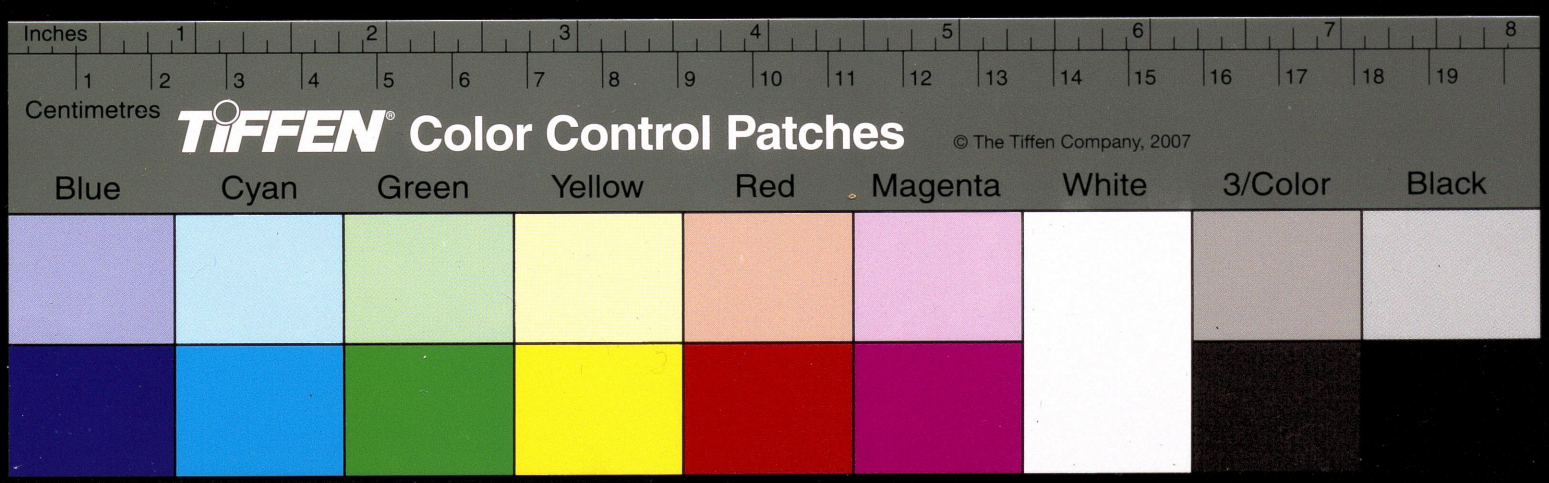
1) The illustrations should be moved to a space more suitable for their storage or the room currently used should be modified to make it more suitable. The storage space should be a separate, secure and temperature-controlled space. Please note that if the space is air-conditioned, it should be air-conditioned permanently (24 hours a day and seven days a week). If this is not possible, it is better not to have an air-conditioned space but instead a cool room with a dehumidifier.



2) The illustrations should be stored in a cool and dark environment in a fireproof and waterproof cupboard that can support the illustrations on their mounts vertically so that there is less pressure on each illustration. As an additional service ARCH@Srishti could work with the Furniture Department of Srishti School of Art, Design and Technology to have an appropriate storage vault prototyped and manufactured.

3) There should be sufficient measures to repel insects and protect the illustrations from them; these measures should be maintained regularly, conducting frequent checks and replacing insecticides. Chemicals commonly used for pest control in households and offices should not be used for this purpose, as this will result in damage to the illustrations. Besides, chemicals do not ensure the elimination of insect eggs. We therefore suggest that the Horticultural Department invest in an ecologically-viable pest treatment system that would treat the books and illustrations, destroying pests such as silverfish and even their eggs. After such treatment, which will have to be undertaken regularly, herbal pesticides should be used. Care should be taken to replace these pesticides every 3 months. ARCH@Srishti is happy to share the recipe for a herbal pesticide which the Horticultural Department should have no difficulty making. As an additional service ARCH@Srishti could procure a customized pest-control system for the Horticultural Department.

4) The illustrations should be remounted or the mounts be repaired, in order to withstand handling. Mounts should be replaced with museum grade board which should be made from 100% cotton so that it does not emit any fumes. Museum grade buffers should be placed between the illustrations to prevent damage from the illustrations rubbing against each other and against their mounts.



5) The illustrations should be scanned with a view to capturing their colours and details as presently visible. Scans should be done at a resolution of 600 dpi and saved in .tiff format. Colour-correction, sharpening, or removal of stains or handwritten comments should not be done on the digital scans. The backs of the illustrations should be scanned, when notes are found written on them. Pencil sketches, prints, and ink drawings should be scanned as well as watercolour paintings.

6) A complete catalogue of the illustrations should be kept in the library for reference of staff and scholars. This catalogue should be made available digitally as well as on paper.

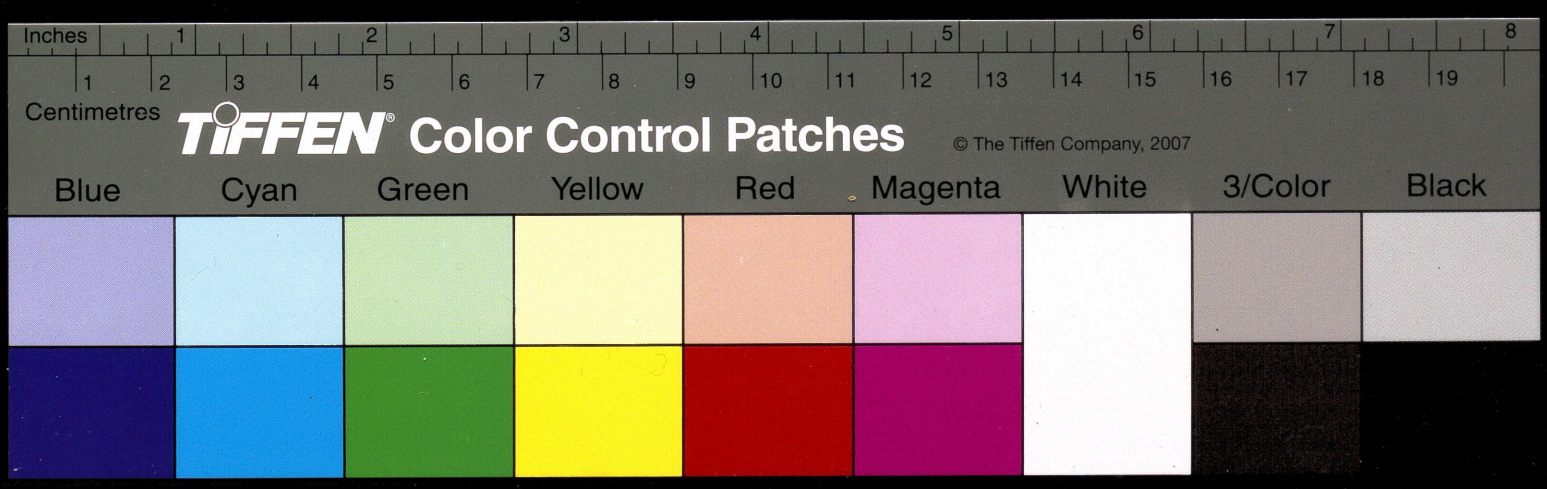
7) All illustrations that are in storage need to be checked at regular intervals. Providing the staff with training would ensure not only maintenance but also that this checking takes place in a proper way. The library and other staff should be given some basic training in the care and handling of the illustrations.

8) After rescanning the illustrations, publication, exhibition and sale of prints should be undertaken to disseminate knowledge of Indian botanical heritage. ARCH@Srishti is happy to work with BET and the Horticultural Department to this end.

9) A complete digital archive should be created to make these priceless paintings accessible internationally.

10) Access to the original illustrations should be provided only with permission from authorized personnel and with supervision.

Dr Indira Chowdhury
ARCH@Srishti
Srishti School of Art, Design and Technology, Bangalore
Date: 1 May 2011



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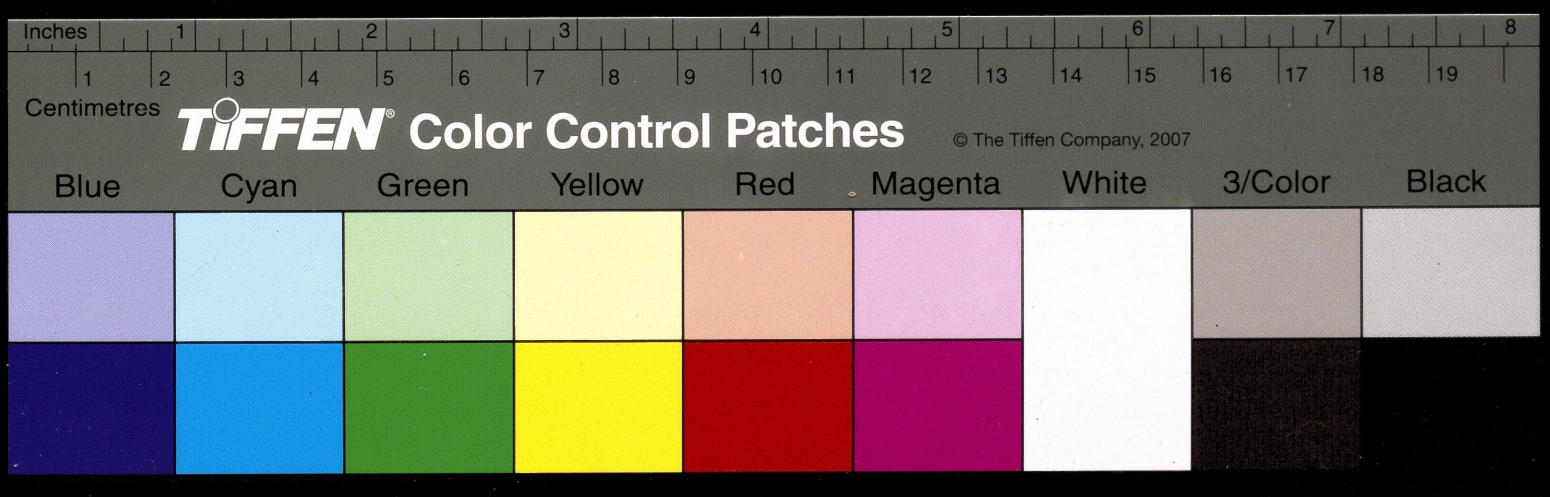


THE LALBAGH BOTANICAL ILLUSTRATIONS

Archival Project Report

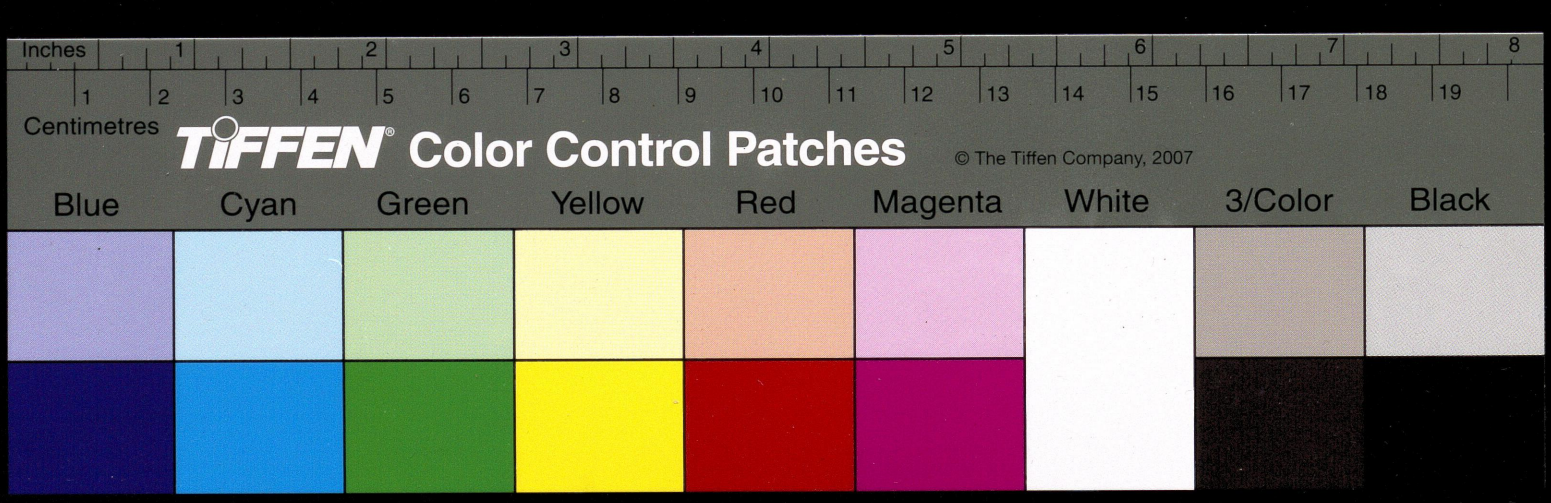


Prepared by

ARCH@Srishti

Srishti School of Art, Design & Technology

for **the Bangalore Environment Trust**



The Lal Bagh Botanical Illustrations Collection

Introduction

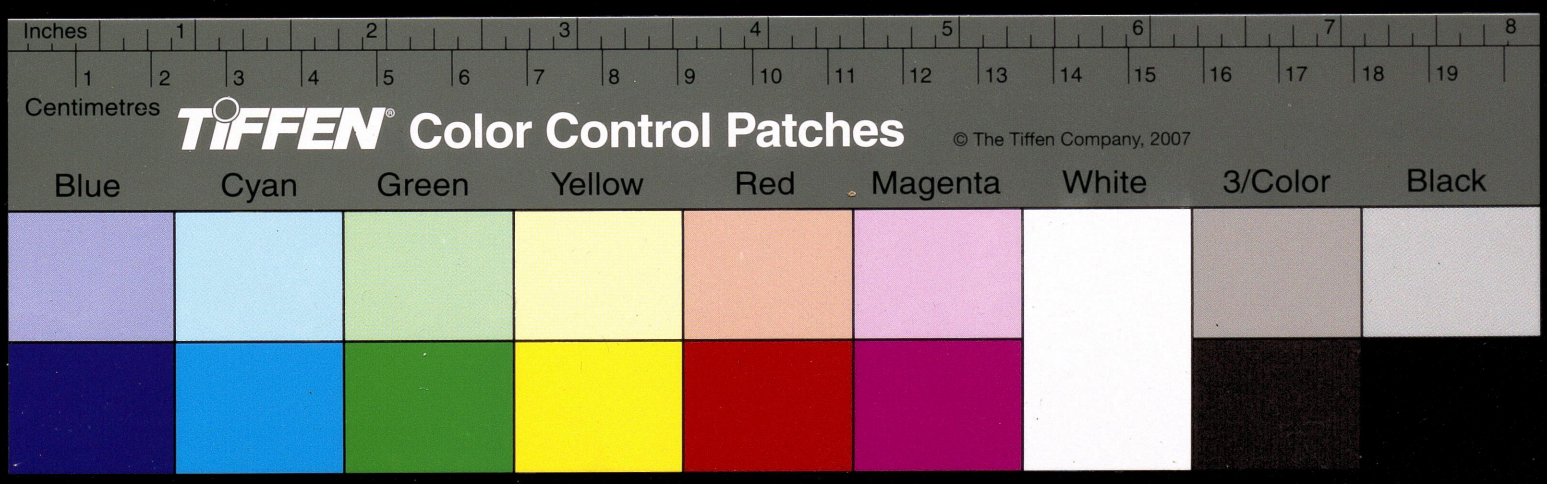
The Context

In 2008 the Bangalore Environmental Trust began discussions with the Department of Horticulture, Government of Karnataka, about the urgent need to preserve the botanical paintings/illustrations housed at the Lal Bagh library. It was strongly felt that once steps to start preservation were taken, other related activities could follow. Both BET and the Department of Horticulture agreed that the collection be scrutinized and studied and paintings that needed restoration work be identified. Further, it was decided that all paintings would be preserved digitally by scanning and an illustrated reference catalogue be produced. BET was entrusted with the responsibility of undertaking this task which it executed with the help of Archival Resources for Contemporary History – an archival consultancy service that now functions as a part of the Srishti School of Art, Design and Technology (ARCH@Srishti).

This catalogue presents the complete collection at Lal Bagh comprising 1020 original botanical illustrations. The botanical illustrations presented here consist of 701 watercolours, 291 pencil drawings, 14 ink drawings and 14 lithographic prints.

The Historical Background

The illustrations at Lal Bagh were executed by several different artists at Lal Bagh



between 1887 and 1949. The illustrations were created in an effort to document plants, trees, and fruits found in or considered important for the erstwhile princely state of Mysore. They have never previously been published in any medium, though they are tremendously significant to the history of botany and horticulture in India and the cultural and artistic heritage of the city of Bangalore.

The story behind this rich collection originates in a unique collaboration between colonial masters and colonized artists. These illustrations were commissioned by John Cameron who was Superintendent of Lal Bagh Botanical Gardens from 1874 to 1908. Cameron's contribution to Lal Bagh is perhaps most evident in the Glass House, the conservatory that he built. The foundation stone for this conservatory was laid by Prince Albert Victor in 1888, at an elite gathering hosted by the Maharaja of Mysore. Committed to developing the botanical garden at Lal Bagh, Cameron managed to add an extra 100 acres of land to the garden during his tenure. It was at this point that the famous Lal Bagh rock (an example of Peninsular Gneiss that is 2.5 to 3.4 billion years old) with Kempe Gowda's watch tower on its summit came to be included in Lal Bagh.

But Cameron's other great contribution, the collection of botanical illustrations at Lal Bagh, began more quietly in 1887, when the Mysore government agreed to pay an artist a salary of Rs. 25 per month.[1] This project worked in tandem with Cameron's other major project that year – which included the authentication of the names of indigenous species, the collection of specimens for the herbarium and the compilation of a correct list of local vernacular names.[2] As a classical botanist, Cameron was interested in the documentation of plants to enlarge the understanding of the field of botany, but he also felt the need to be involved in the geographical and cultural specificity of the environment at Lal Bagh. Botanical Gardens were a common sight all through the British Empire and not surprisingly, Cameron, a

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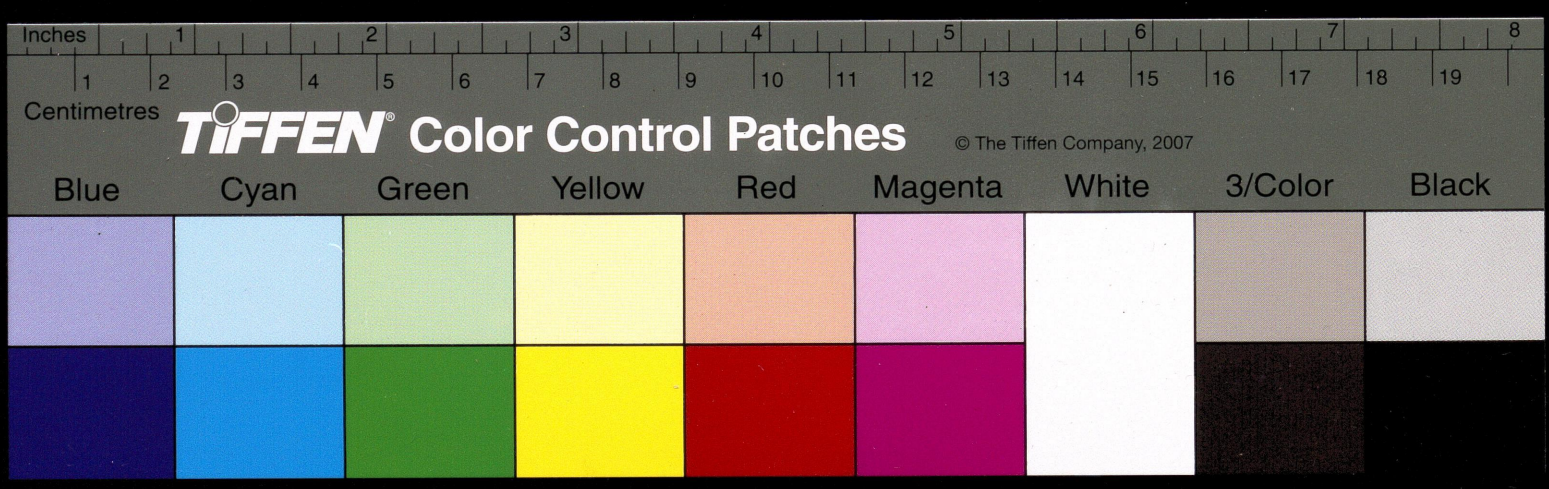
[1] *Report on the Government Botanical Gardens and Parks in Bangalore for 1887-88*, J. Cameron, p. 1. Acc. No. (B)9691, Karnataka State Archives (Departmental Library), Bangalore.

[2] *Ibid.* pp. 2-3.



botanist trained at Kew Gardens, went about contextualizing the local botanical knowledge that he encountered at Lal Bagh within the British Empire's broader view of the natural sciences.

Cameron's reports serve as the major source for information on the project of botanical illustration at Lal Bagh, even though only five reports from the period of his superintendence at the gardens survive in the State Archives at the Vidhan Soudha, Bangalore. Cameron's work with the artist employed to carry out the illustrations for the years 1887 and 1888 was not solely limited to supervision. He also worked on the strategy for documentation, choosing from among the botanical wealth at Lal Bagh and doing reference work to ensure that the illustrations did not duplicate work done by botanical artists elsewhere. Nor was Cameron's work carried out in isolation. He referred to the work of Robert Wight, Superintendent of the Madras Botanic Gardens, who was in India between 1819 and 1853 and to the work of Thomas Beddoes, a part-time botanist who had written a complete *Flora of the British Isles*. Cameron explained that his intention was to document plants "important to Mysore" which had not been included in the works of these botanists.[3]

This keenness to contribute locally went hand-in-hand with an awareness of plants from across the world. With botanical gardens across and outside the British Empire, he exchanged descriptions, dried specimens, saplings, and seeds. He also introduced a large variety of species to Lal Bagh and the state of Mysore – most famously, the chow-chow or *Sechium edule*, a plant native to Middle America that is ubiquitous enough in Southern India to have earned the name "Bangalore brinjal." The chow-chow was introduced in 1887-88, around the time when the artist was hired.[4] In fact, Cameron's Report on the Government Gardens and Parks for the year 1887-88 includes a black-and-white plate of *Sechium edule*; its presence in the report indicates Cameron's belief in the value of such illustrations and was

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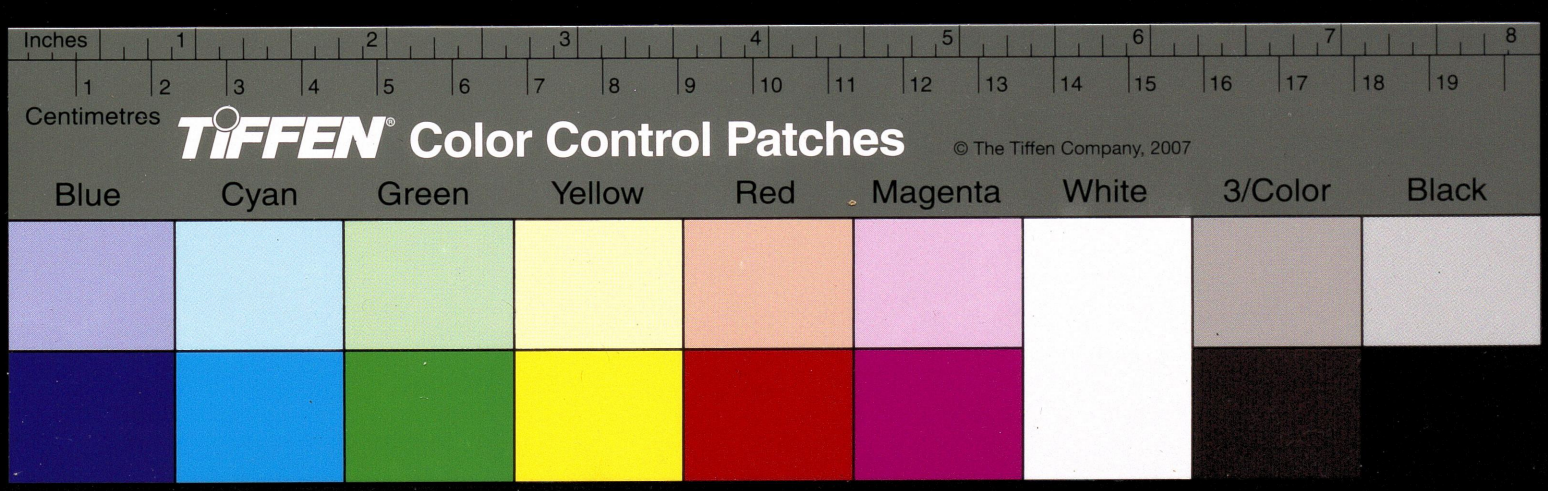
[3] *Ibid.* p. 1.
[4] *Ibid.* p. 6.



presumably also a way for him to immediately justify the new hire and demonstrate how the Lal Bagh botanical documentation could benefit from this.

The Government Gardens Report for the year also notes that the artist's drawings "are proceeding satisfactorily"[5]—indeed, Cameron must have felt a certain relief at being able to report thus to the Mysore government, considering that he had during the year created a new head under the budget for the artist, demonstrating his belief in the significance and lasting value of institutionalizing this work. Cameron's reports describe what sort of work the artist completed each year and, in some cases, even give lists of coloured drawings done during the year—which have proved invaluable in dating some of the paintings.

Chelaviah Raju

Unfortunately, though not surprisingly, Cameron's reports are not forthcoming on details about the artist as an individual employee; the reports discuss him only as the executor of Cameron's project. From his name, it seems that he was probably from a family of painters from Tanjore.[6] It is evident from the illustrations that he was highly skilled and that his botanical art work improved over time. Indeed, quite early on in the artist's tenure, in the 1890-91 report, Cameron mentions that "Constant practice at the same class of work has effected considerable improvement in both touch and finish, and some of the latest drawings are very creditable indeed."[7] Beyond this, the reports mention that in 1895-96, "K. Chelvia [sic!] Raju, artist" was given a raise in salary[8]; this is the first time an artist's name is mentioned in the surviving reports, though by comparing the lists of paintings from each year with the actual works

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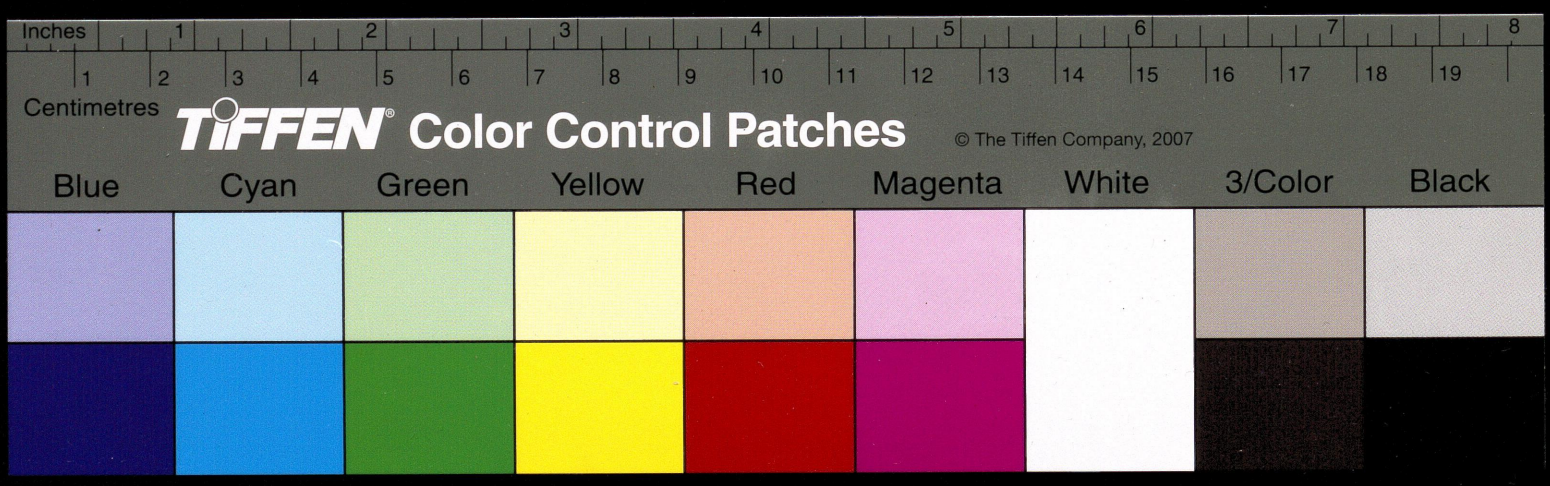
[5] *Ibid.* p. 4.
[6] We are grateful to Dr Savithri Preetha Nair for her insights in this regard.
[7] *Report on the Government Botanical Gardens and Parks for the Year 1890-91*, J. Cameron, p. 4. Acc. No. (B) 9695, Karnataka State Archives (Departmental Library), Bangalore.
[8] *Annual Report on Government Gardens and Parks for the Year 1895-96*, J. Cameron, p. 2. Acc. No. (B) 9700, Karnataka State Archives (Departmental Library), Bangalore.

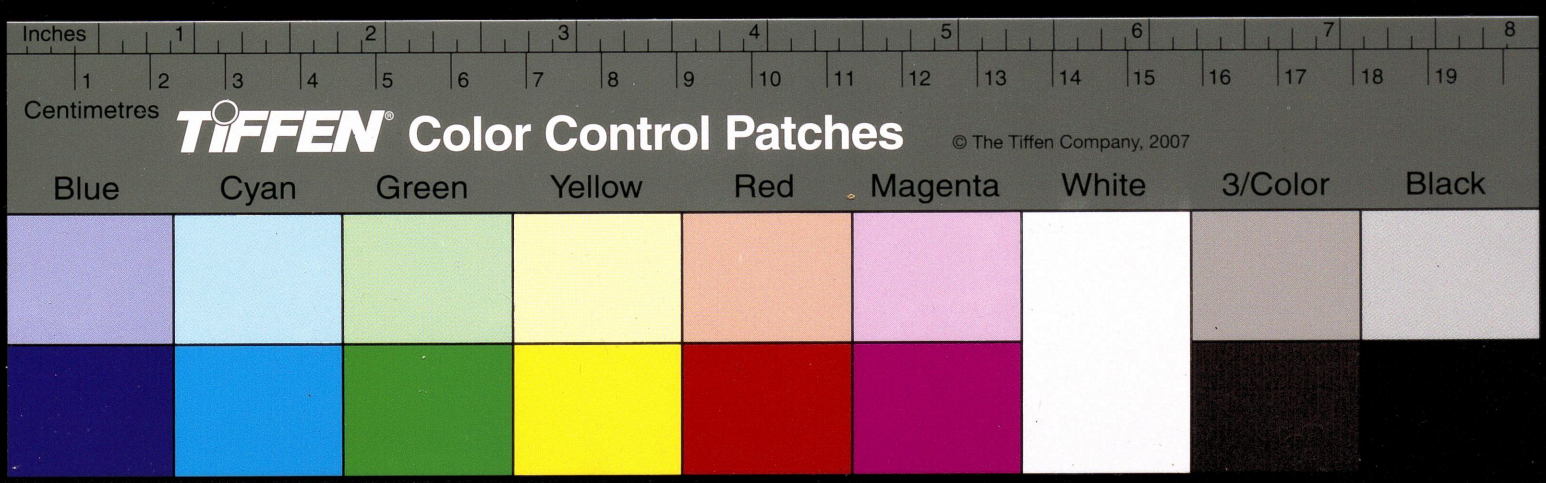


in the collection, we know that Raju's work at Lal Bagh started nearly a decade previously.

Although he is not named in the reports, K. Cheluviah Raju's name is very much in evidence on the illustrations done by him. Each of Raju's paintings – around 450 in total -- is signed, in a clear hand, at the left bottom corner. His name is signed in the Roman script with inconsistent spelling; even on paintings apparently done in the same year. Although Cheluviah Raju is clearly identified as the painter, Cameron himself is not absent; the initials "J.C." serve as a mark of endorsement at the right bottom corner of most illustrations. But the project seems to be incontrovertibly driven by the genius of K. Cheluviah Raju.

The technique of botanical illustrations

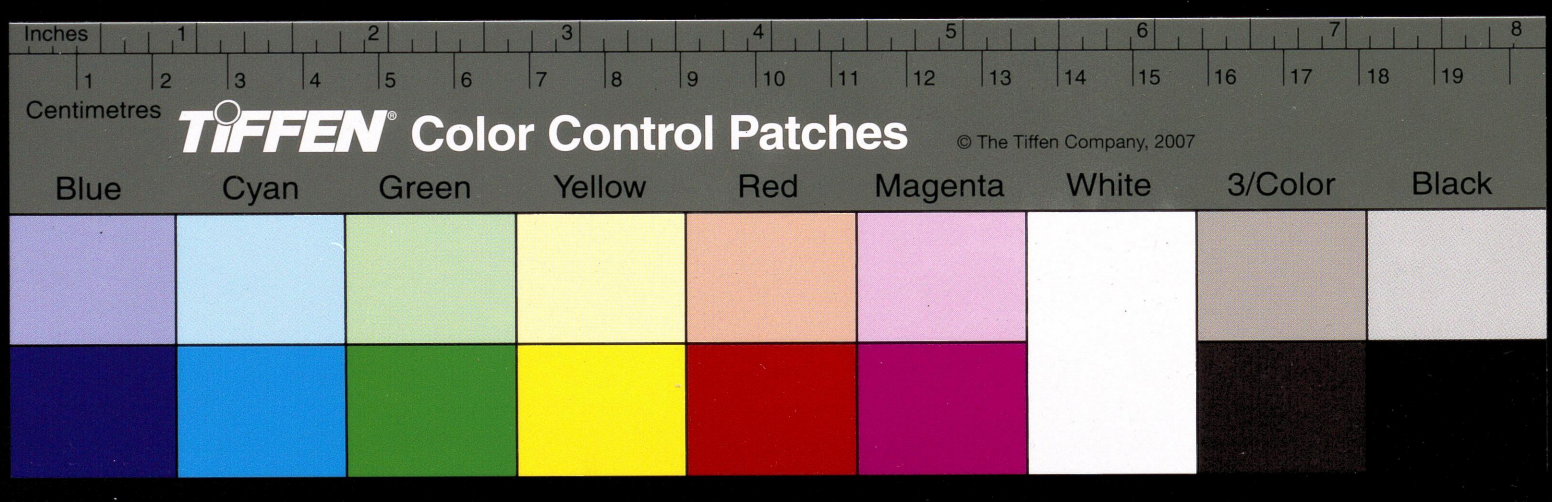
The works of Cheluviah Raju could be discussed in great detail within the context of the genre of botanical watercolours of the late 19th century; however, that lies beyond the scope of our present work. Instead, we will discuss here some of the most obvious technical features of the illustrations. The choice of medium is entirely in keeping with the tradition of botanical art which is most often executed in watercolour; the colours and translucence of watercolour on a page most closely simulate the appearance of the actual plant. The Lal Bagh collection includes not only watercolour illustrations by Cheluviah Raju but also his preparatory pencil drawings. Some of these match the final work exactly, while others depict only some parts of the plant and might even depict them with a different layout or positioning than that shown in the final painting. These pencil drawings would offer the opportunity to study the artist's work in progress and are thus a very valuable part of the collection. Also included in the collection are a few lithographic prints, again signed by Cheluviah Raju; these include proof and final copies of *Mussoenda frondosa* and a print of *Hygrophila spinosa* that exactly matches the watercolour of



the plant.

The layout of Chelaviah Raju's works is truly skilful. The effect created is that of a sheet of paper on which is drawn a single-line rectangular frame and the text-book details, cross-sections and dissections of plant parts, all in black ink. However, Raju's art lies in making the coloured leaves and stems stretch beyond and partially obscure the frame, thus the actual plant in all its glorious colour and detail springs vividly off the page. The effect is that of a branch freshly cut from a tree and laid on a sheet of paper – a harkening back to the herbarium, with its sheets on which are mounted dried parts of plants, and the practice of botanists who would cut off a specimen for closer study. In some cases, the plant peeps out almost threatening to escape from behind a window of sorts, created in effect by having its leaves and stem disappear behind that illusory frame of a rectangle inked on paper. Some of the most beautiful and detailed illustrations represent large fruits or seed pods in the background, with a leafy branch and flowers in the foreground, giving the observer a sense of perspective. A stunning and immediate naturalism is achieved by use of such layouts.

Cheluviah Raju does not pinpoint a light source by showing the light falling starkly from a particular direction. His plants appear to be suffused only in a soft but clear light, barely visible in the delicate brightening at the tops of some leaves and flowers and on stems. Despite this skilful and subtle use of light to add perspective, there is a curious and elusive suggestion of flatness about the paintings, partly because there are no shadows on the paper in the "background." The flatness can, however, be attributed primarily to the fact that when Cheluviah Raju sharpens the outlines of the various parts of plants, he does so most often with a colour darker than the object being outlined – for instance, leaves are outlined most often with black. His work is, in fact, a peculiarly Indian form of botanical art, bringing in, whether deliberately or unconsciously, a long tradition of outline-drawing in miniature painting—a tradition that Cheluviah Raju might be presumed to have been trained



in, considering his probable background as a member of a family of painters at the Tanjore court.

There is no evidence to suggest that Cheluviah Raju was trained in botany before he came to Lal Bagh, but his gift for botanical observation was obviously remarkable. It is impossible to show the life cycle of the plant on one page without minute observation carried out throughout the year. Cheluviah Raju's notebooks and sketchbooks can only be imagined; there is no evidence to suggest that they survive. But they must have held records of the observations he carried out each day. These observation skills seem to have worked in tandem with great skill in employing painting techniques. A magnifying glass shows us fine details on the paintings and allows some insight into what Cheluviah Raju did in order to capture the colours and textures of nature. He successfully depicts the opacity of certain plant parts while retaining the effect of light on them; in other words, they are not entirely opaque. The graded wash, that is, using more and more water to create a gradation of brightness is one technique probably used. Some parts also appear to have been painted in layers to achieve greater and less degrees of intensity of colour. Particularly interesting is his use of dry-brushing to depict textural variation on a leaf or flower; the technique involves taking pigment with a barely-wet brush and using fine strokes or dots to fill in the colour. This technique has often been used to show fine nerves on leaves; sometimes they are highlighted in a lighter colour and at others, they nearly disappear into the rest of the leaf, the astounding details visible only if looked at very closely. Such textural exactness is crucial to the realism of botanical documentation and is one of the outstanding features of Cheluviah Raju's work.[9] Most of our information on the artist, thus, comes from his work alone. Cameron's reports of the work are not helpful in this regard.

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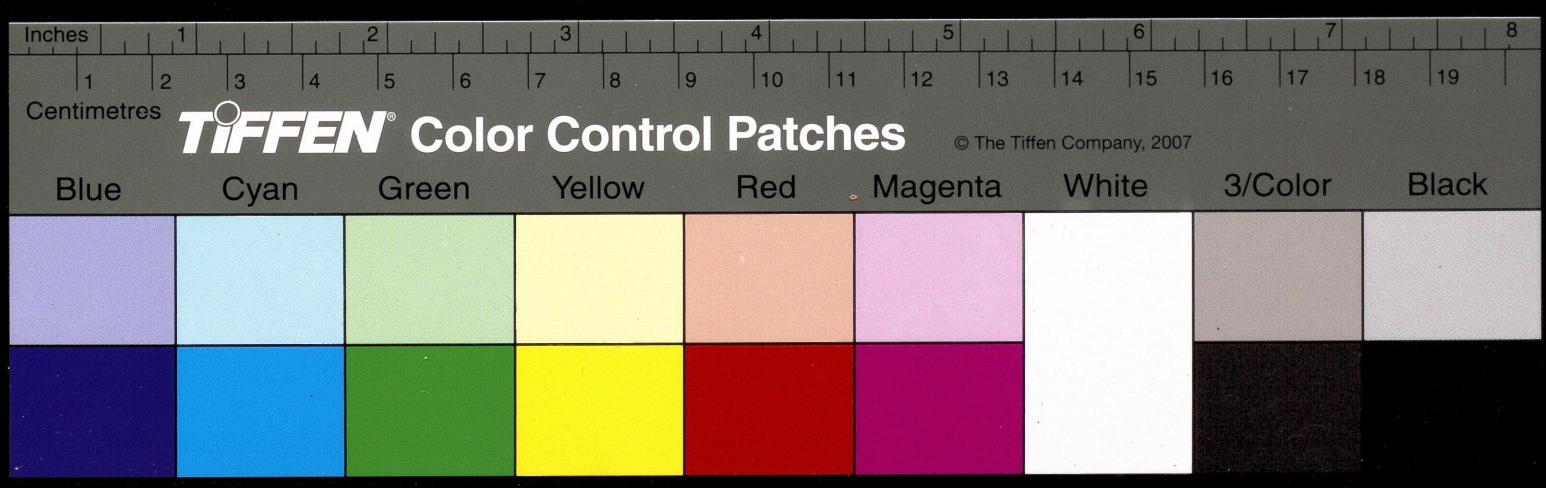
[9] We are grateful to Ms Geetali Tare for her insights on artistic techniques used.



Cameron's larger vision

Cameron's reports sketch briefly for us the larger vision behind the project, especially what he had hoped to achieve by working with the artist for botanical documentation. As he suggests, in 1890-91: "If the Government should decide to have the plates reproduced by an English firm, I shall ascertain on what terms the work could be done."[10] It is another reminder of Cameron's interest in public edification—the illustrations were intended to be reproduced and distributed as a visual form of botanical description, to improve the understanding of the science of botany.

In 1897-98, Cameron wrote, hopefully, "The whole collection will be forwarded to Kew when there is a favourable opportunity. This is at the request of the Director of Kew Gardens and with a view to being advised as to the best means of utilizing the plates for public instruction."[11] This was not a successful endeavour, for Cameron reported, in 1899-1900: "The publishing of a selection of these drawings as recommended by the Director of Kew Gardens has been deferred owing to financial pressure and the heavy cost."[12] Presumably the level of detailing required for a good botanical illustration – demanding the capacity to depict even a single hair on a stem or the finest of veins on a leaf – and the gradations of colour required made the then-common colour printing process of chromolithography too complex and beyond the budget the Lal Bagh superintendent had available to him. Nonetheless, Sir William Thiselton Dyer of Kew advised that the collection "be forwarded to the Royal Botanic Gardens, Calcutta, where Major D. Prain, Superintendent, will perhaps be good enough to determine the unnamed plates and give suggestions for the improvement of this important work."[13]

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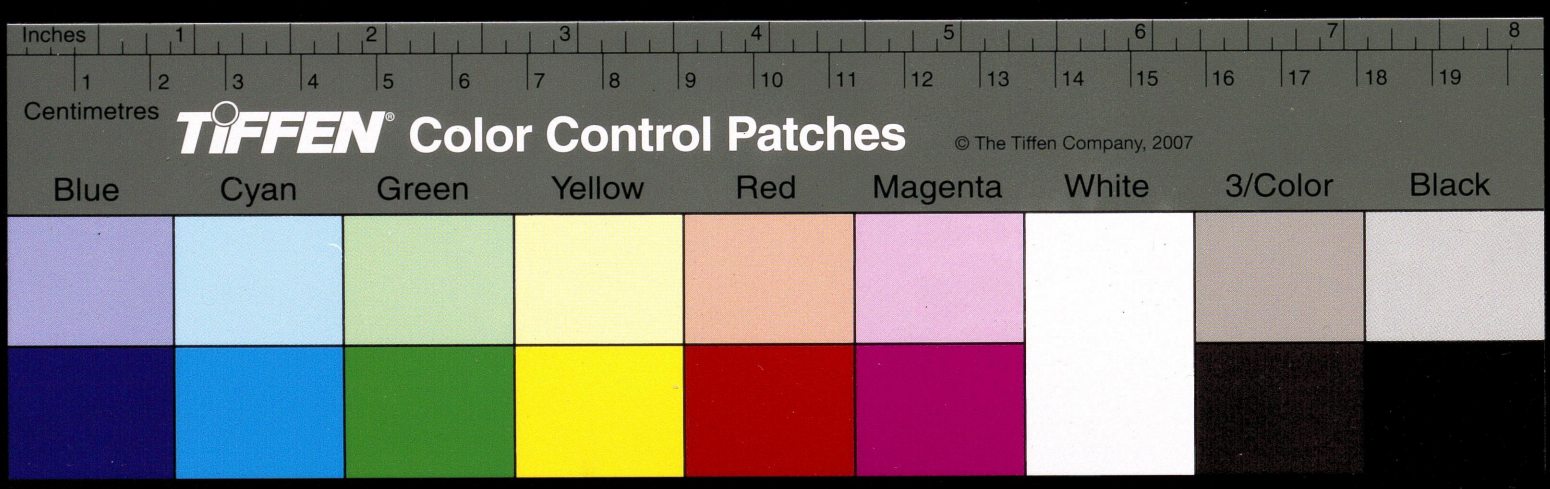
[10] *Report on the Government Botanical Gardens and Parks for the Year 1890-91*, J. Cameron, p. 4. Acc. No. (B) 9695, Karnataka State Archives (Departmental Library), Bangalore.
[11] *Annual Report on Government Gardens and Parks in Mysore for the Year 1897-98*, J. Cameron, p. 5. Acc. No. (B) 9700, Karnataka State Archives (Departmental Library), Bangalore.
[12] *Annual Report on Government Gardens and Parks in Mysore for the Year 1899-1900*, J. Cameron, p. 4. Acc. No. (B)9700, Karnataka State Archives (Departmental Library), Bangalore.
[13] *Ibid.*



Major D. Prain, later knighted Sir David Prain, identifiably left his mark on the Lal Bagh illustrations in a few cases, with handwritten comments that he also initialled. "We have specimen that agrees but it is marked Ficus. Not matched at Kew and has no name," he remarked on one painting that was simply titled "Ficus sp."—it is not certain whether the inked title was appended retroactively or before Prain examined the painting. On another, identified only in pencil as *Sterculia acerifolia*, a comment says, "Not S. Urens. Not in Herb Calcutta, or in Hort. Calcutta either. Can you spare us seeds of this?" Cameron, Dyer, and Prain passed on certain botanical mysteries like these to each other, but the hoped-for publication and distribution never materialized; by the time Cameron retired from his superintendence in 1908, the illustrations numbered 750, as he stated in a 56-page *List of botanical drawings, in water colours, in the collection of The State Botanical Gardens, Lal Bagh, Bangalore,*[14] that he then authored, but they remained accessible only to those who could see them at Lal Bagh.

The coming of the camera

In the aftermath of Cameron's retirement, several factors brought an end to the illustration project as it had been executed over 20 years. The arrival of photography now made it possible to capture in a second what an artist might take months to observe and depict. Proponents of botanical photography in the early 20th century did not, however, have the two advantages that the watercolour illustrator did—photography was not yet equal to the task of capturing minute gradation of colour and hue, and a photograph could not show in a single photograph what a botanical illustration could: the passage of time and the seasons, the life cycle of the plant, with a bud, flower, fruit, and seed all visible on the same plate. Nonetheless, the new

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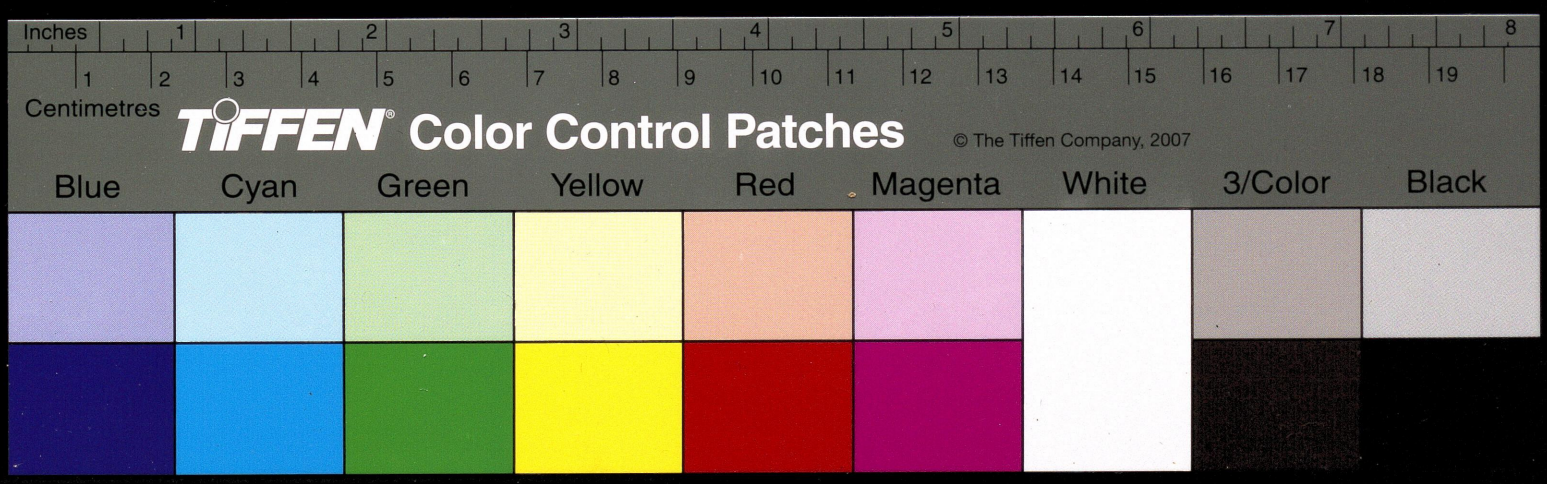
[14] "Preview of Lal Bagh Botanical Artworks," James J. White, *Bulletin of the Hunt Institute for Botanical Documentation*, 11(1), Spring 1999, p. 2.



medium was given increasing emphasis.

Thus it was that from "13 coloured drawings of economic plants, 9 drawings of botanical subjects, 29 drawings of entomological specimens" added to the collection in 1924-25,[15] the importance given to the botanical illustration as a means of documentation shrank so that only 15 drawings were said have been added in 1928-29,[16] along with 37 photographs, and the last painting entered the collection in 1949. The dark room, "provided with a teak wood ceiling" in 1924-25,[17] was a marker of the investment made in the new art and science of photography as it developed. At the same time, the budget for the artist's work also had to be made tighter, as is evident from the fact that the quality of the paper used was far from being as good as that used earlier, when the artist worked with J. Whatman and Co. paper, that was specially designed for watercolours (as visible from the watermark on the paper) and with water colours made by Windsor and Newton. At present, some of the paintings dated in the 1920s and 1930s are in far poorer condition than those done between 1887 and 1907, with their paper disintegrating at the edges, severe discolouration and foxing, and the paint occasionally flaking off.

Significantly, the purpose of the later illustrations also differed sharply from those of the earlier period. The earlier works, from the Cameron-Cheluviah Raju era, depicted whole plants, in minute detail, with plant parts highlighted, within a frame and with the botanical name indicated in ink. They were clearly meant to be, in a sense, depictions of the typical specimen. As such, the place and date of execution were never included—the illustrations did not have to be tied to a particular specimen or a particular time. Later additions to the collection, however, are notable for their particularity of documentation. Varieties of a particular species are represented, as

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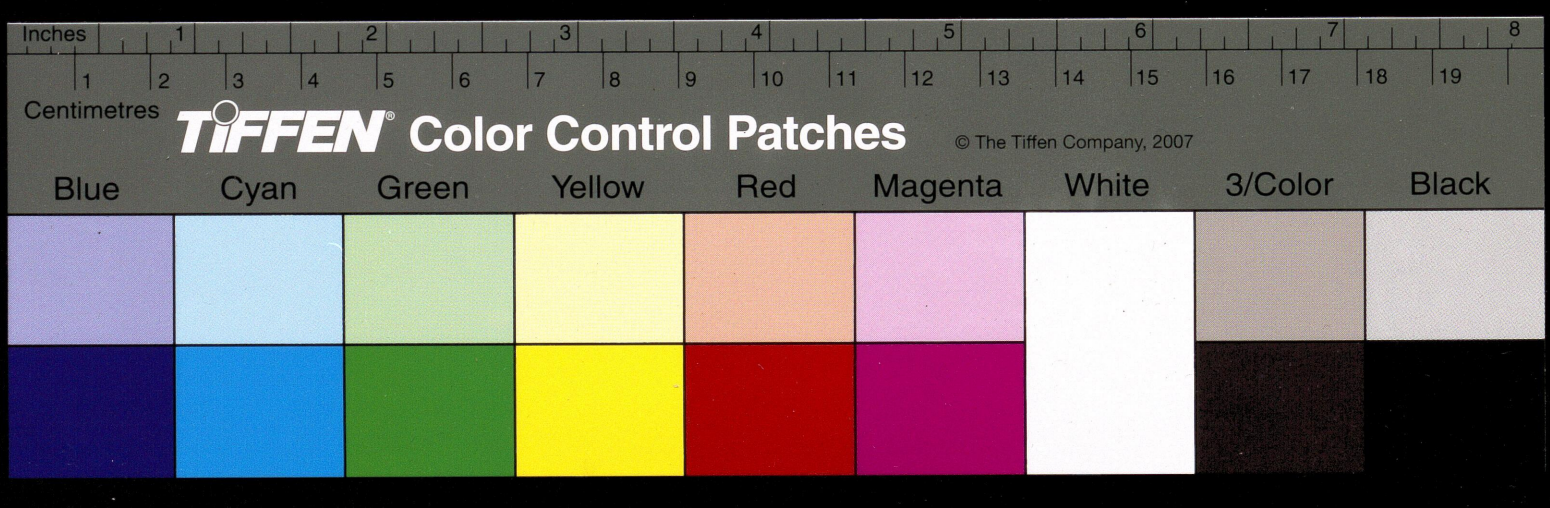
[15] *Annual Administration Report of the Government Gardens Department for the Year 1924-25*, H. C. Javaraya, p. 6. Acc. No. (B) 9708, Karnataka State Archives (Departmental Library), Bangalore.

[16] Administration *Report of the Government Gardens Department for the Year 1928-29*, G. H. Krumbiegel, p. 6. Acc. No. (B) 9708, Karnataka State Archives (Departmental Library), Bangalore.

[17] *Annual Administration Report of the Government Gardens Department for the Year 1924-25*, H. C. Javaraya, p. 8. Acc. No. (B) 9708, Karnataka State Archives (Departmental Library), Bangalore.



with more than 40 different varieties of *Mangifera indica*. Fruits alone form the bulk of the later additions, and these are quite often identified as having been grown at a particular place and by a particular person, painted on a particular date, and so on. Grafts are illustrated, as are pests and plant diseases.

Krumbiegel and a shift in vision

Cameron, we can surmise, intended the botanical documentation work to be a contribution to the work done by botanists across the globe. His successor, Gustav Herman Krumbiegal, inherited an artist and set about making the artist's work consistent with the rest of the work being done by the botanical garden. Thus, for instance, the artist accompanied the seed propagator to Goa in 1912-13, during the mango season, to collect grafts of the fruit and make "coloured drawings" of different varieties[18]. Later, drawings of pests and plant diseases were made for instructional purposes. The illustrations, in short, move into the realm of an applied botany in this period.

Krumbiegel also invested in a drawing department, but this was for a new field Lal Bagh entered—that of garden and urban planning. The emphasis was on copying garden plans and on drawing new ones for use. From the quality and detailing of the botanical illustrations executed in this period, it is quite evident that though the artists who painted at Lal Bagh between the 1920s and the 1940s were competent enough, a shift in interests as well as the existence of photography had resulted in the later additions to the collection not being as demonstrative of excellent technique and botanical observation as those from the earlier period. That being said, these later illustrations have a tremendous value as horticultural documents of a specific period—from them it is possible to reach some understanding of what fruits grew and where, what experiments were made, and what problems arose. They are the

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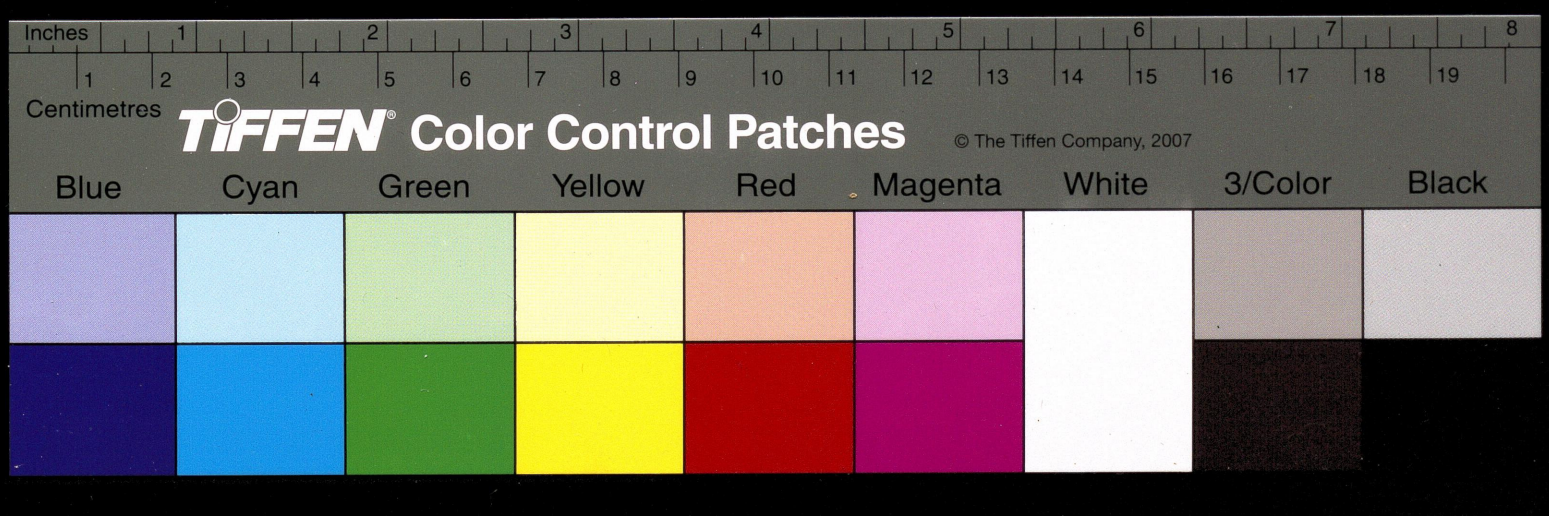
[18] *Report on the Working of the Government Gardens and Parks in Mysore During the Year 1912-13*, G. H. Krumbiegel, p. 7. Acc. No. (B)9704, Karnataka State Archives (Departmental Library), Bangalore.



glimpses of a horticultural history that remains for the most part obscure.

Organization of this Catalogue

The illustrations have been grouped by plant family (e.g. Acanthaceae, Clusiaceae, etc.) and ordered alphabetically by genus names within each group. Where a pair or set of illustrations forms a series of iterations by the artist in different mediums of the same subject, they appear consecutively; this is to allow for easy comparison between related illustrations. Please refer to the Index to find the plant you wish to find.

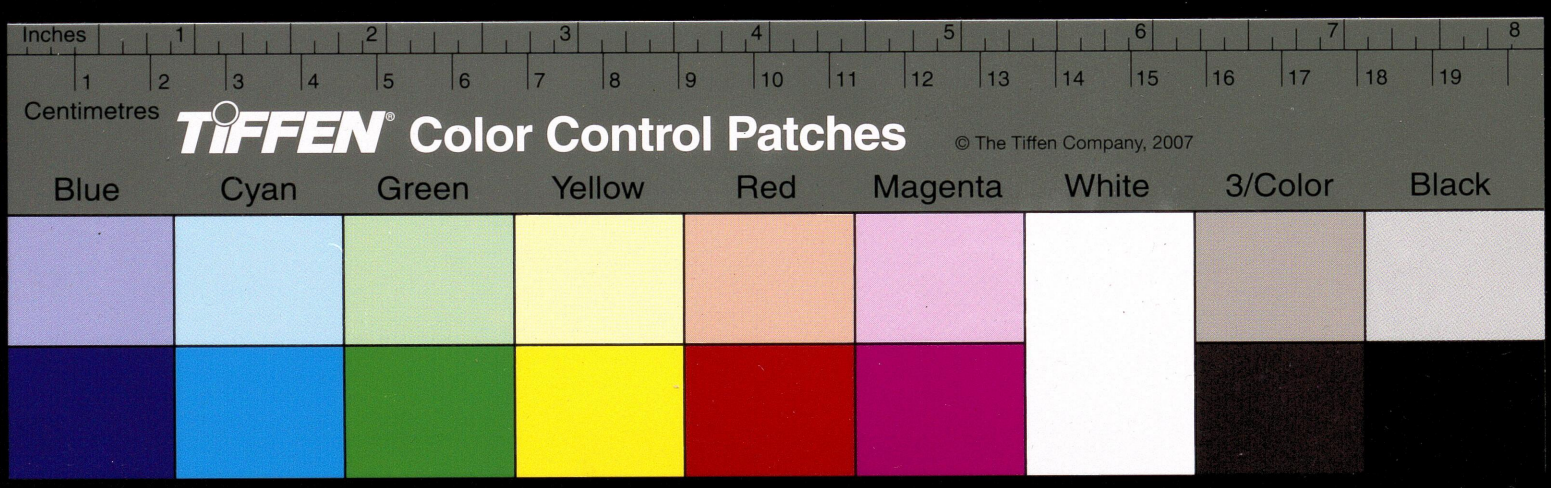
Details of fields used in this Catalogue:

In cataloguing the watercolours, pencil or ink drawings, and prints, we have tried to include two kinds of information – botanical and archival. The information can be grouped under these heads as follows:

a) **Botanical**: Botanical names and synonyms, plant family, common names (in English and where appropriate, in Indian languages), Kannada names, location in Lal Bagh Botanical Gardens.
b) **Archival**: Accession number, title as on illustration, medium, measurements (in cm), artist's signature (as on illustration), date of execution, place of execution, condition, and handwritten comments on illustration.

Accession number:

Illustrations have been given accession numbers that provide certain immediate information.



Botanical names and synonyms, plant family: These categories are essential to a basic identification and classification of the plant. In cases where botanical names or families were not available or not verified, we entered "Unknown" into the records. Where botanical names used as titles on the illustrations were found to be only synonyms of accepted names, we included both the synonym used as the title and the accepted name. All botanical names include author citations for added clarity of identification, considering the large number of species involved.

Common names: We included common names in English and, in some cases, in Indian languages as well; names in various Indian languages were also included where a plant was most commonly known by a particular name, whatever be the originating language. E.g., Gulmohur. [19]

Kannada names: Many of the plants depicted are exotic species that have not entered Kannada, the local language. Where available, Kannada names were included.[20]

Location in Lal Bagh: The majority of species represented once existed in Lal Bagh; this category was included so that those species represented in the collection and still surviving in Lal Bagh could be identified.[21]

Title as on Illustration: The title given on the illustration is noted in this field, with any errors in identification or spelling retained.

Medium: This indicates whether an illustration is done in watercolour, ink, pencil or is a lithographic print.

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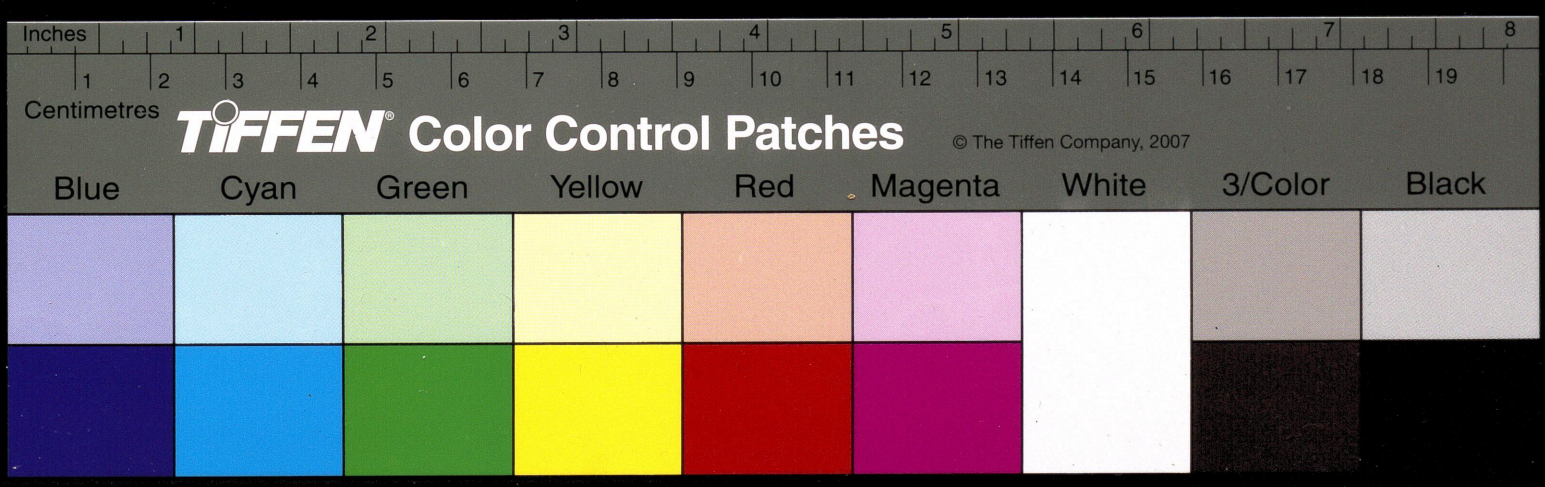
[19] Sources used for common names included (a) the *Dictionary of Common Names* (http://www.plantpress.com/dictionary.html) , published by The Plant Press, Great Britain (b) *Flowers of India* (http://www.flowersofindia.in/) (c) *Forest Trees of South India*, S.G. Neginhal, self-published, Bangalore, 2004 (d) *Golden Trees, Greenspaces and Urban Forestry*, S.G. Neginhal, self-published, Bangalore, 2006

[20] Sources used for Kannada names included (a) *Flowers of India* (http://www.flowersofindia.in/) (b) "A List of the Canarese and Technical Names of the Plants growing in the Bangalore District," *Report on the Working of the Government Gardens and Parks in Mysore During the Year 1887-88*, J. Cameron, pp. 13-27. (c) *Forest Trees of South India*, S.G. Neginhal, self-published, Bangalore, 2004 (d) *Golden Trees, Greenspaces and Urban Forestry*, S.G. Neginhal, self-published, Bangalore, 2006.

[21] We are grateful to Mr K.G. Krishnaraju and Mr T.M. Thimmegowda of the Lal Bagh Botanical Gardens for their help with compiling this information.



Artist's name as on illustration: Where available, the artist's name was noted down.

Measurements (in cms): The size of illustration.

Date of execution: The date of execution was noted down from some of the paintings. Other paintings were dated by matching them with the lists of paintings completed each year as reported by Cameron in the reports on Government Gardens.

Place of execution: On some paintings, the place of execution was mentioned; this was noted where available.

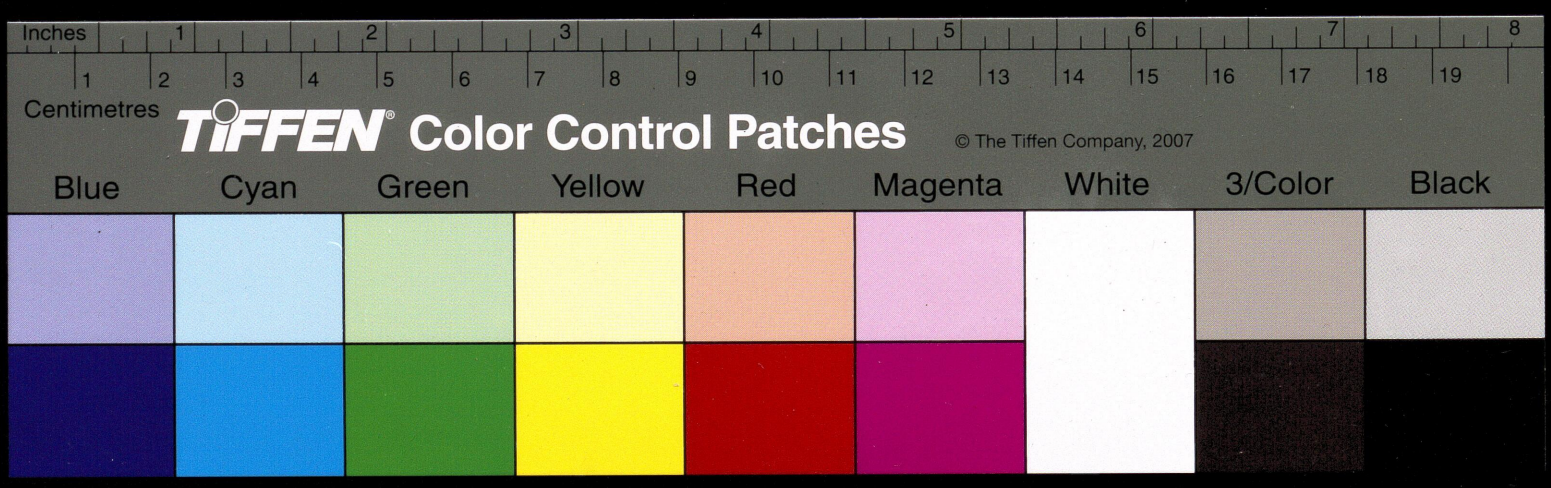
Condition: Illustrations were classified as good (very little visible damage), stained (large stains), foxed (brown spotting from acid in the paper), fragile (the paper torn or disintegrating), damaged by silverfish, requiring remounting (if fasteners or buffers showed signs of foxing or were torn, and if illustration was loose and not securely fastened to mount).

Handwritten comments: Handwritten comments were transcribed where they described corrections to be made to illustrations, discussed problems with identification, and explained how illustration differed from accepted description of a plant. These have archival value as a record of how the illustrations were assessed. Numerous other handwritten comments were noted, primarily references to botanical reference books and whether the plant was present in a reference or not, botanical names, plant families, and numbers indicating either a page in a book or possibly a previous attempt at organizing the collection. These comments are often repetitive and many cases not intelligible; they have not been included in the catalogue.

An example accession number from the catalogue is explained below:

LBI0934P.CON.IPO07.1

LBI is an acronym for "Lal Bagh Botanical Illustrations."



0934 is the unique number identifying the illustration, numbers range from 0001 to 1020.

P indicates that this is a pencil drawing. [Other categories used are W for watercolour, I for ink, and L for lithographic print.]

CON comes from the plant family; in this case, Convolvulaceae. In all cases, the first three letters of the family name have been used.

IPO comes from the genus; in this case, Ipomoea. In all cases, the first three letters of the genus name have been used.

07 indicates that this was the seventh different Ipomoea species represented in the collection. 1 indicates that this was the first variation of the particular species representation, i.e., there was another drawing or painting of the same species represented in the same way. The first iteration would have been 07, the second 07.1, the third, 07.2 and so on.

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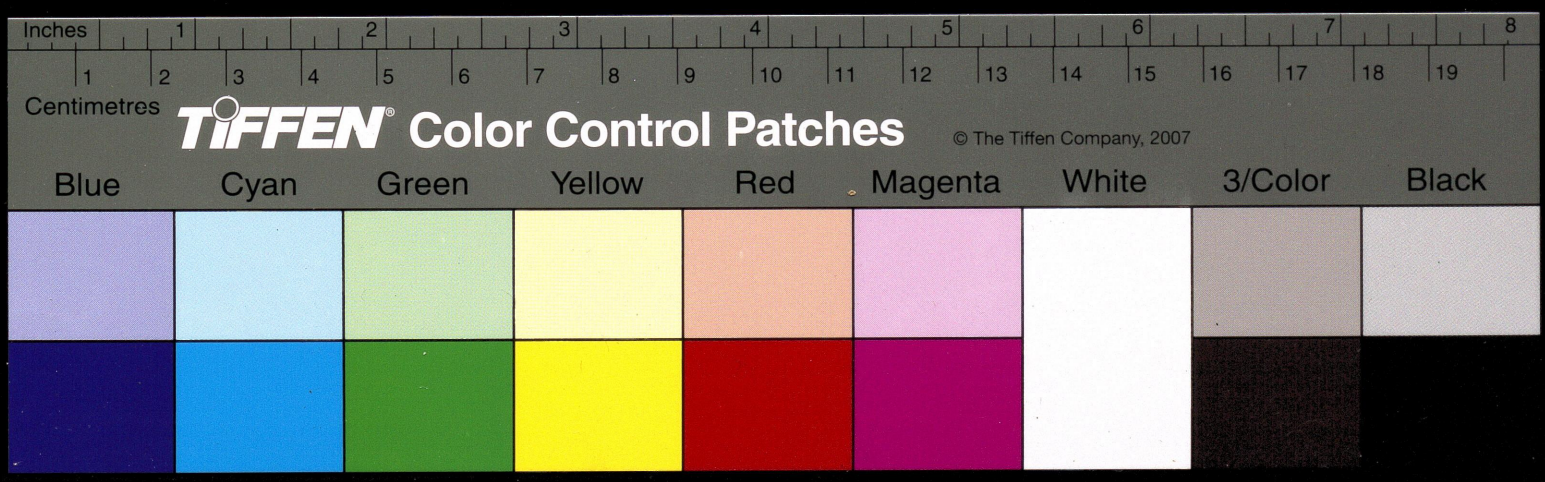
[information will be given by BET]



FICUS RACEMOSA.

SYN. FICUS GLOMERATA

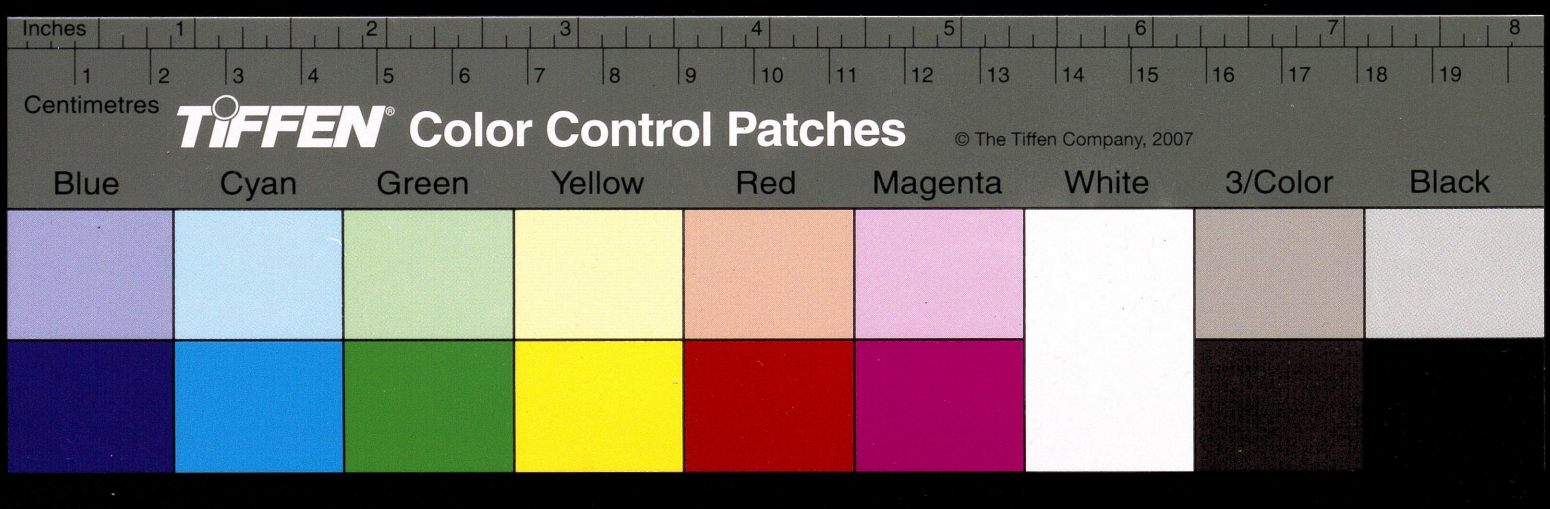
CLUSTER FIG. COUNTRY FIG. CRATTOK.

UDUMBAR (SANSKRIT). UMRI. GOOLAR. ATHIMARA (KANNADA)

This species of fig trees is found across India, tropical Asia and Australia. The tree seems to have come to Asia from Africa where there are a number of similar species of Cluster Figs (eg. Ficus sycamorus – mulberry fig – brought to the Mediterranean for cultivation of edible figs – timber used for Pharaohs sarcophagi). This tree is found growing naturally in moist soils next to streams lakes and ponds. In the countryside the belief is there is a source of water below a naturally growing Umri tree. The tree is rarely cultivated and is not found in dry regions. This fig species does not have aerial roots, is not an epiphyte or strangular fig. The colour of the bark on the crooked trunks and branches ranges from grey to yellow to rust. When young, the bark is smooth and with age becomes scaly. This is a medium sized deciduous tree with a spreading crown.

The figs grow in clusters directly off the trunk and branches. The globose fig have a short stalk and are 2 -3 cms wide. The leaves are around 10 cms in length and are long and thin , leathery, darker on the upper surface and paler colour below.

Figs and aganoid wasps have a symbiotic relationship which is an example of a highly specialized cycle of life – compelling and vital. This relationship is one of the many relationships which radiate out from the Umri ; a host of creatures – butterflies, bats, squirrels, geckos, birds, deer and other animals create an eco system in and around the Umri. The fig (synconium) has a rich succulent flesh packed with high energy carbohydrates including sugars. Thus, the Umri attracts frugivorous birds, insectivores and other creatures which disperse the seeds essential for the propagation of the trees. The tree laden with figs draws a whole host of birds and is one

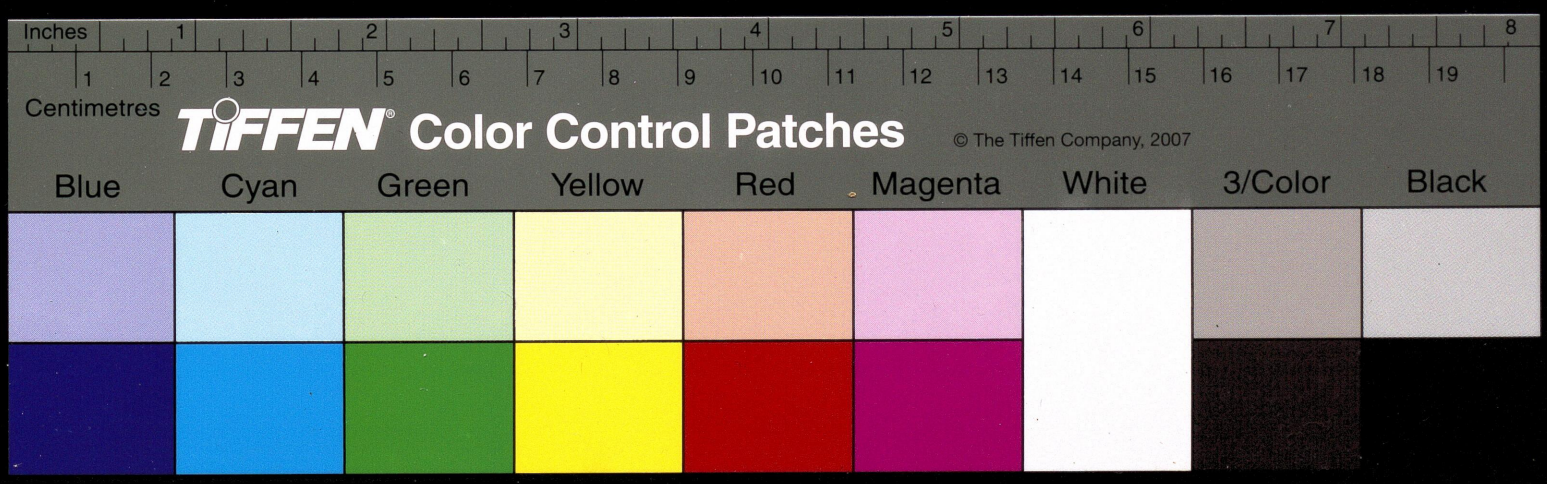


of the great attractions in the countryside in India – green pigeons, koels, barbets, coppersmiths, bulbuls, starlings, white eyes, fly catchers, tailor birds, bee eaters and wren warblers. Some feed on the pulp of the figs, others directly on seeds. Some eat the fig whole and some peck at the figs. Many birds feed indirectly on the wasps and other invertebrates attracted to the bounty. Some birds seem to get all their water requirements directly from the fig. In addition, you have crow pheasants feeding off the geckos on the tree and koels and orioles feed on caterpillars which in turn feed on the fig leaves. Figs also attract fruit bats. Hornbills, mynas, parakeets and spotted owlets nest on natural hollows in the tree. Coppersmiths and barbets nest in the hollows made by them in the dead branches.

From the feeding habits of the birds it becomes clear that some birds are seed predators rather than seed dispersers. There are also birds like doves which are ground foragers feeding off seeds of fallen figs.

Of mammals, rhesus macacques and langurs feed on the figs. Squirrels spend whole days on the tree and jungle pigs regularly eat fallen figs and even the civet, a carnivore, includes figs in its diet. Rodents feed upon the seeds of fallen figs. When there are fallen figs on water these are consumed by omnivorous fishes.

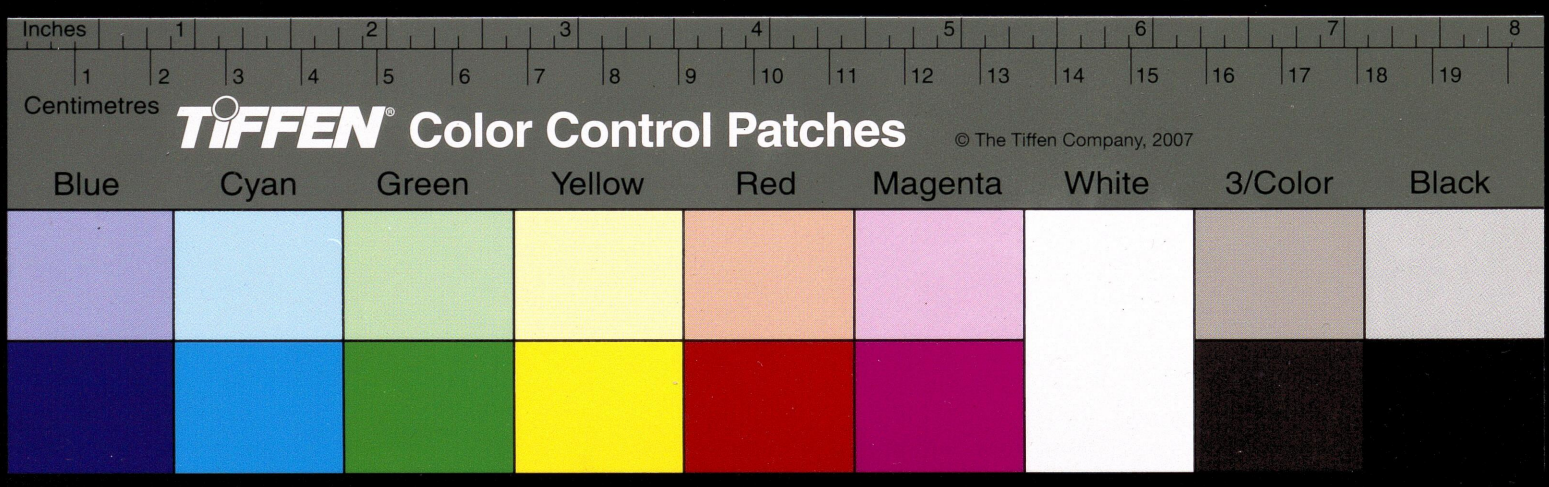
The Umri or Goolar more than any other fig species, except perhaps for the Banyan, is flush with all forms of life. Man also eats the figs, not merely as a famine food, but finds the figs palatable though not comparable to Ficus carica – the edible fig.



"WHEN ONE TUGS AT A SINGLE STRING IN NATURE, HE FINDS IT ATTACHED TO THE REST OF THE WORLD" – JOHN MUIR NATURALIST

Nina Bhat in an article titled "Fig Leaf" in Indian Birds has written about the interconnectedness and overflowing life in the Umri tree – read on.

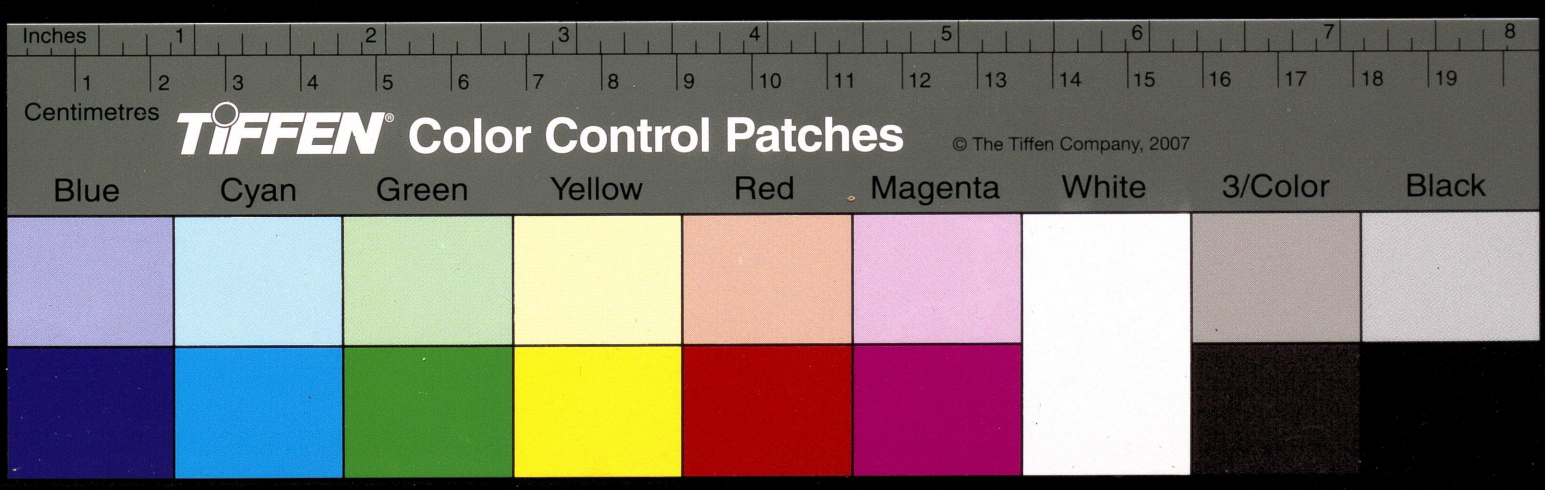
Article by Nina Bhat



settecentomila abitanti, esiste un uomo radice. Si chiama **Vijay Thiruvady**, trascorre il suo tempo principalmente ad accompagnare visitatori da ogni angolo del mondo a vedere i grandi alberi dei **giardini botanici Lalbagh** (scritto anche Lal Bagh, ovvero il giardino rosso). Esiste un sito dove è possibile prenotare la prossima visita: www.bangalorewalks.com/html/green-heritage-walk.html

Stavo cercando notizie riguardanti il tamarindo (*Tamarindus indica*), non riuscivo a capire se esistesse un sito che elencasse gli esemplari più vecchi del mondo. Ho saputo che ne esiste uno di grandi dimensioni a Surola, in Bangladesh, di cinquecento anni e con un tronco che supera nettamente i dieci metri di circonferenza. In India, nello stato di Karnataka, dove si trovano le due città di Bijapur e Mysore, conosciute per i palazzi storici, è stata stilata una lista di dieci alberi plurisecolari, fra i quali spicca un tamarindo di 883 anni, a Devara Hipparagi, e un baobad (*Adansonia digitata*) di seicento che sorge accanto al monumento a Ibrahim Roza, a Bijapur. Di questo albero, del suo fusto colonnare sormontato da una ragguardevole massa di foglie, davanti ad un palazzo celeste con la consueta cupola così come si vede in molti edifici indiani, circolano alcune fotografie, in internet. Non sono affatto certo che si tratti del tamarindo più vetusto del mondo ma comunque, al momento, non ho trovato informazioni che lo smentiscano.

Proseguendo nelle ricerche sono finito a leggere una intervista che un giornalista ha fatto a questo signor Thiruvady, autore di due volumi, *Heritage Trees* e *Green Heritage Sites*, editi dal **Bangalore Environment Trust**, un ente che si occupa di valorizzare le bellezze naturalistiche presenti nella città. L'intervista è datata 30 aprile 2009. L'autore, Poornima Dasharathi, uno scrittore freelance e viaggiatore entusiasta, così recita la sua breve nota biografica, introduce la chiacchierata sostenendo che «*Affermare che Thiruvady sia una enciclopedia ambulante sugli alberi e le aree boscose a e intorno Bangalore non sarebbe lontano dalla verità. Tuttavia, lui non è soltanto un botanico ma anche uno storico*». Prima di leggere l'intervista vado a curiosare in altri siti per capire chi sia e chi è stato quest'uomo che in una foto appare appagato, pasciuto, sorretto da un bastone ma comunque ben felice dietro i suoi occhialoni neri. Trovo una articolata biografia sul sito del Bangalore Environment Trust: si dice che ha vissuto per molti tempo a Delhi, vivendo nel bungalow di suo nonno che si trovava a poca distanza dall'abitazione di Nehru, uno dei padri dell'India insieme a Gandhi; si è formato al St. Stephen College e quindi alla Scuola di Architettura di Ahmedabad; agli anni degli studi nasce la sua grande passione per la natura che lo accompagnerà per tutta la vita, sebbene lavorerà per oltre trent'anni con diverse grandi imprese industriali. Attualmente vive in una fattoria fuori Bangalore e conduce dal 2005 le **Green Heritage Walks** (si potrebbero tradurre come Passeggiate ai patriarchi verdi, ai monumenti verdi) a Lalbagh. Quest'uomo mi piace già, mi dico. Sul sito dedicato a questo progetto leggo che in quattro anni oltre diecimila persone hanno partecipato alle camminate. Il punto più interessante dell'intervista riguarda il censimento degli alberi storici di Bangalore e dintorni. Un tempo la regione era una landa piatta e priva di alti fusti. Lo testimoniano alcune vecchie fotografie. Dopo la celebre sconfitta degli inglesi ad opera di **Tipu Sultan** (1750-1779, conosciuto come la Tigre di Mysore), al termine della **seconda guerra anglo-Mysore** (1780-1784), gli indiani hanno incominciato a piantare ficus, alberi della pioggia, che servono non soltanto per arredare le strade ma anche per proteggere dalla pioggia o anche baniani. In particolare i baniani sono gli alberi più venerati dell'India, e si trovano spesso al centro fisico dei villaggi; questi alberi diventano da una parte abitazione per molte specie di uccelli, farfalle e pipistrelli, ma anche l'altare sacro di un villaggio. Due sono le parole chiavi per capire dove venivano piantati e per quali ragioni questo tipo di alberi tradizionali:



Devarakadus e *Gundutopus*. Le prime sono delle piccole aree boschive che venivano considerata l'abitazione delle divinità del villaggio. I Gundutopus invece erano aree comuni, nel villaggio, che venivano destinate alla coltivazione di piante per la comunità; erano molto utilizzati durante le feste e le cerimonie funebri. Dal censimento che è stato fatto risulta che soltanto quattro di questi siti sono ancora intatti; molti altri sono stati seriamente ridotti o cancellati dalla rapida espansione industriale e urbanistica. Ho letto anche un resoconto della visita che i delegati dell'**Organizzazione Internazionale del Turismo delle Nazioni Unite** hanno fatto a Bangalore, visitando i giardini illustrati da Thiruvady. C'erano delegati da oltre diversi continenti e quattordici paesi del mondo. Thiruvady si diceva soddisfatto del fatto che in questi giardini i delegati potessero vedere alberi che non avevano mai visto e al contempo alberi e piante che invece erano comuni nei rispettivi continenti. In una splendida foto si vede l'intera delegazione riposare sotto un enorme albero del cotone, simbolo dei giardini e, fra l'altro, della tradizione letterale e mitologica dell'India: di fatti nel **Mahabharata**, Pita Maha, dopo aver creato il mondo, trova ristoro all'ombra di un Shamali, di un albero del cotone (*Bombax*).

I giardini botanici Lalbagh sono stati iniziati nel 1760 da **Hyder Alì**, sultano di Mysore, nel diciottesimo secolo e conclusi dal figlio Tipu Sultan, nel 1784, su un'area di quarantacinque acri, a imitazione dei giardini in stile Moghul che erano molto popolari ai tempi, caratterizzati per la presenza di corsi d'acqua, stagni e fontane. Da allora i giardini si sono sviluppati, arricchiti, sono state aggiunte strutture come la grande serra in vetro, raggiungendo la dimensione attuale di duecentoquaranta acri. I giardini sono aperti tutti i giorni, tutto l'anno dalle sei di mattina alle sette di sera. Sito ufficiale: www.lalbaghgardens.com

A Bangalore amano tanto gli alberi. Si è infatti celebrata nel 2010 la prima edizione di **Around a Tree. An Urban Tree Festival** (Intorno ad un albero. Un festival urbano arboreo), undici appuntamenti svoltisi fra il 26 giugno ed il 4 luglio.

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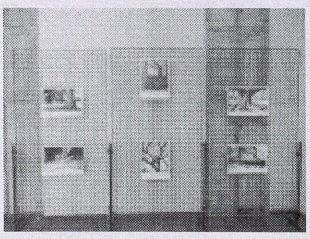
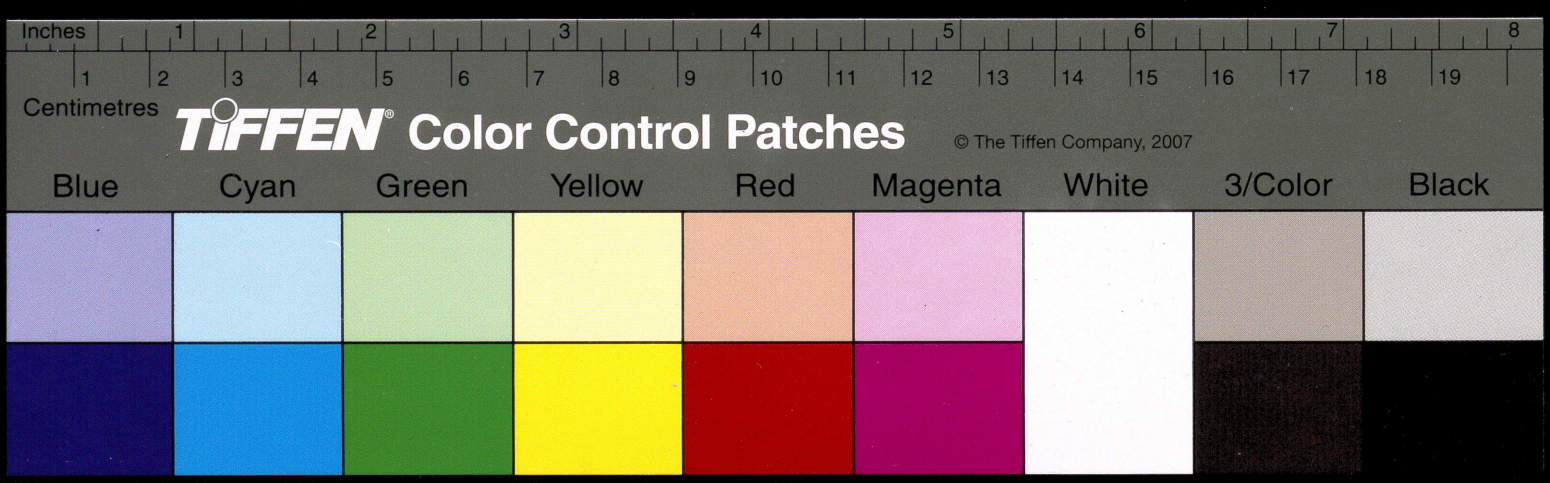
23 gennaio 2011

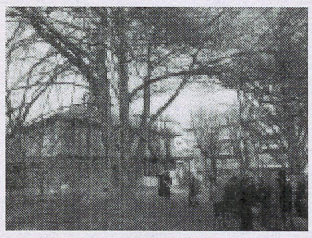
Grazie al pubblico che è intervenuto

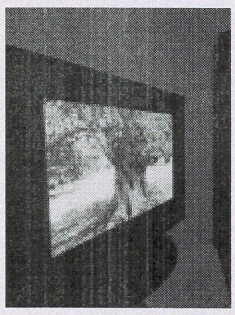












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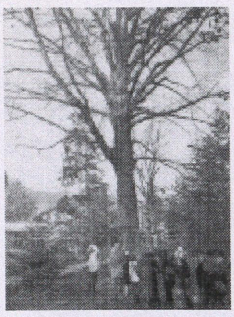
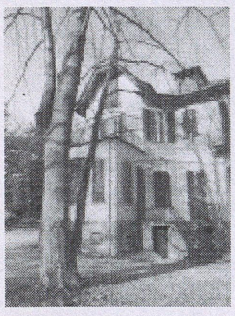


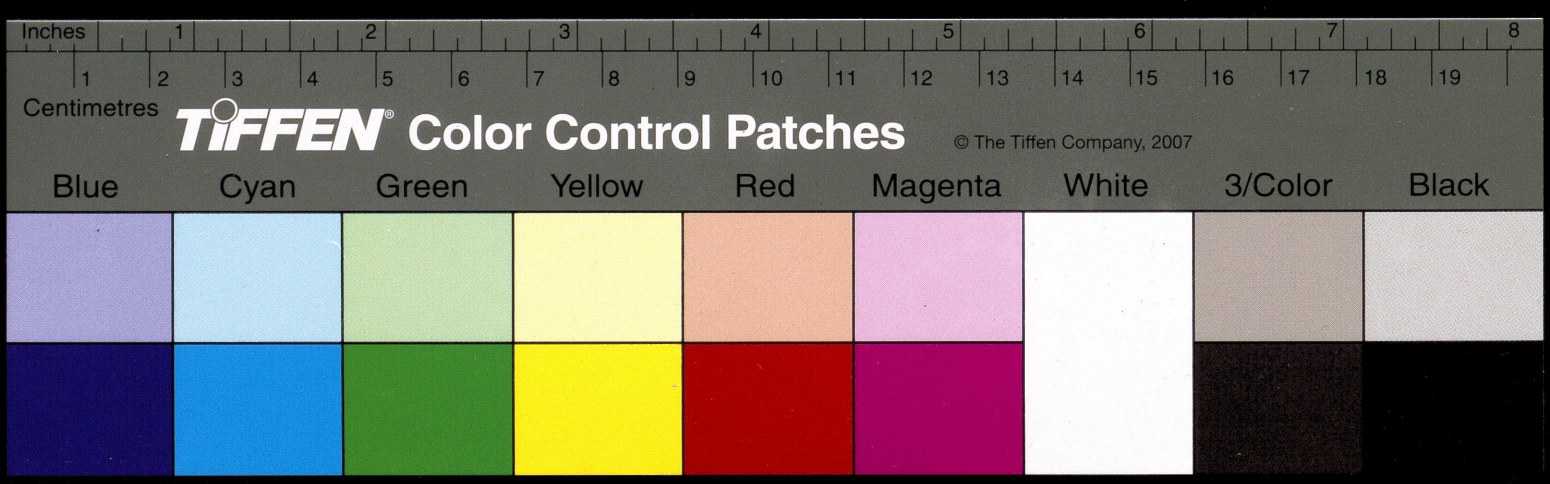




Ieri abbiamo inaugurato l'esposizione **Homo Radix** a **Villa Prever**, Pinerolo. Ringrazio le tante persone che sono intervenuto, dai rapresentanti delle istituzioni e della associazioni agli amanti degli alberi e della natura o della fotografia.
Dopo i saluti ufficiali da parte di **GianPiero Casagrande**, direttore della **Biblioteca civica Alliaudi** e miei abbiamo fatto visita ad alcuni degli alberi che arricchischino il parco della villa liberty, quindi ho illustrato specie botaniche e luoghi delle fotografie in esposizione nelle sei sale.

Ricordo agli interessati che la mostra resterà aperta fino al 20 febbraio, con apertura nei giorni venerdì, sabato e domanica, dalle 15 alle 18. E' possibile prenotare la visita guidata della domenica pomeriggio alle ore 16, telefonando alla biblioteca civica, tel. 0121 37.45.05 o mandando una email a: to0162@biblioteche.reteunitaria.piemonte.it, lasciando il vostro nomicativo, una email ed un numero di

http://homoradix.wordpress.com/ 1/25/2011



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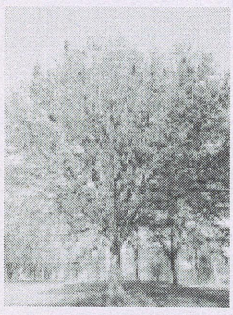
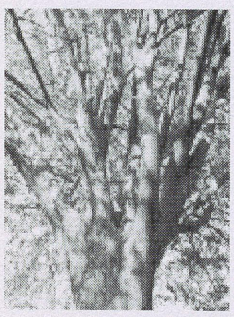
23 gennaio 2011

La Zelcova giapponese di Millefonti







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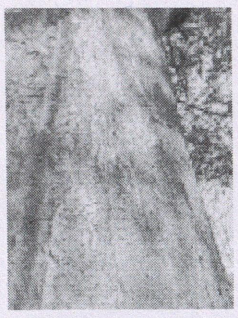
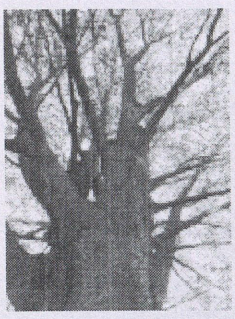
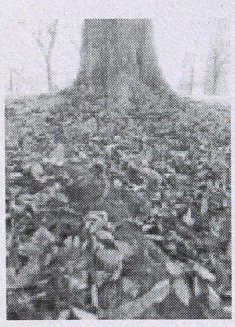
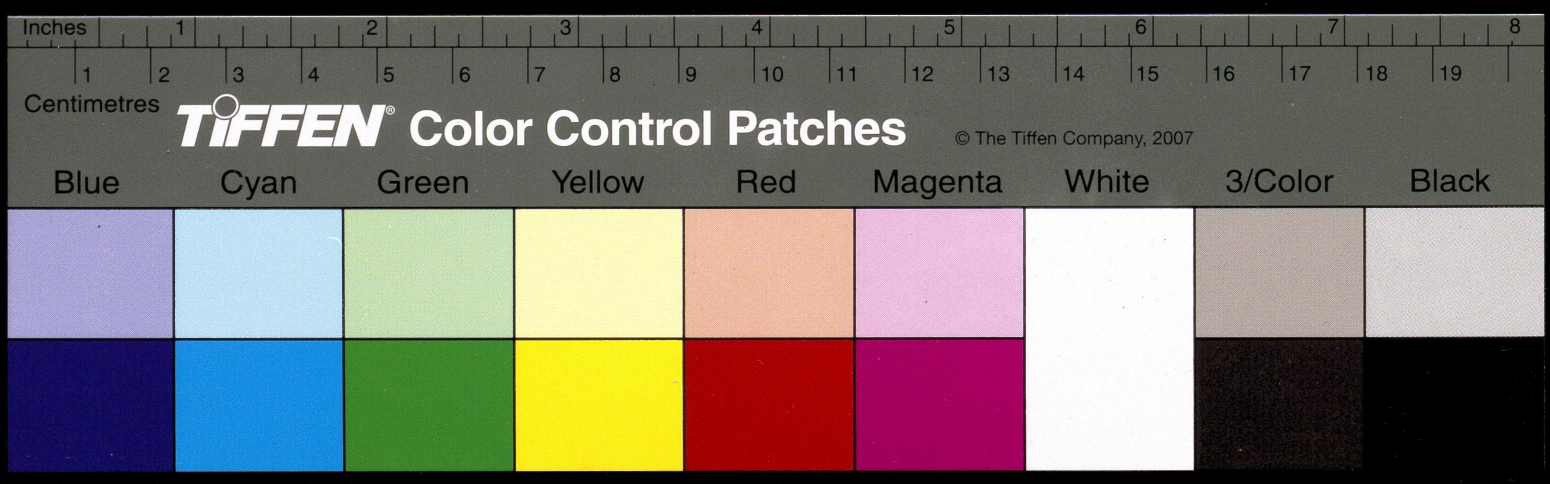






Il **Parco di Millefonti** si sviluppa lungo il po dal ponte che conduce all'ospedale Le Molinette fino alla passerella sul fiume dal nome Maratona di Torino, a Italia '61. E' un parco conosciuto soprattutto dai ciclisti e dai maniaci del footing, meno come parco ricco di interessanti specie arboree. Prima di tutto molte piante sono dotate di corretta segnaletica che informa il cittadino del nome comune dell'albero, del nome latino, della famiglia di appartenenza e dei paesi del mondo nei quali cresce autoctono. In questo lungo parco si possono incontrare pioppi tremuli, pioppi neri nordamericani (*Populus x canadensis*), pioopi neri italiani (*Populus nigra*), pioppi bianchi (*Populus alba*), larici (*Larix decidua*), tigli comuni (*Tilia europea*), acacie (*Acacia*), cedri del libano (*Cedrus libani*), faggi (*Fagus sylvatica*), faggi rossi (*Fagus sylvatica Purpurea*), bagolari (*Celtis australis*), platani (*Platanus x acerifolia*), noci del Caucaso (*Pterocarya caucasica fraxinifolia*), pini dell'Himalaya (*Pinus wallichiana*), pini strobi (*Pinus strobus*), pioppi cipressini (*Populus*



pyramidalis), ippocastani (*Aesculus hippocastanum*), tassi (*Taxus baccata*), tigli selvatici (*Tilia cordata*), gimnocladi (*Gymnocladus dioica* o come lo chiamano gli americano Kentucky Coffee Tree), pini silvestri (*Pinus sylvestris*), cedri dell'Atlante (*Cedrus atlantica*), magnolie (*Magnolia sempervirens*), querce rosse (*Quercus rubra*, qui denominate col più raro *Quercus borealis*), roverelle (*Quercus pubescens*), olmi montani (*Ulmus glabra*), ligustri (*Lygustrum*), spini di Giuda (*Gleditschia*), libocedri o cipressi della California o cedri bianchi della California (*Calocedrus decurrens*), liquidambar (*Liquidambar styraciflua*), frassini a foglie strette (*Fraxinus angustifolia*), criptomerie del Giappone (*Cryptomeria japonica*), un raro esempio di bagolaro occidentale (*Celtis occidentalis*). Insomma una gran bella varietà botanica.

La specie più interessante e rara è una **Zelcova del Giappone** (*Zelcova serrata*). Da lontano la Zelcova si sviluppava vigorosa, tanto che l'avevo immediatamente incasellata nella voce bagolaro; al contrario avvicinandomi ne ho notato la corteccia macchiata di ruggine e screpolata, i rami carichi di foglie rinsecchite: ne raccolgo una dal manto che ricopre la terra, la lamina è seghettata, lunghe 2-3 cm, con picciolo inesistente. Ne misuro la circonferenza: 257 cm. L'albero ha uno sviluppo molto interessante, con un bel tronco possente che si diparte in molti rami che raggiungono i ventidue, forse i ventiquattro metri di altezza. Verso nord parte una radice che affiora dal terreno con vigore per due metri e venti: ha un colore verde – i muschi – mischiato ai due colori prevalenti nel tronco, il ruggine ed il grigio chiaro. A Torino, cari cercatori di alberi, è un albero da visitare.

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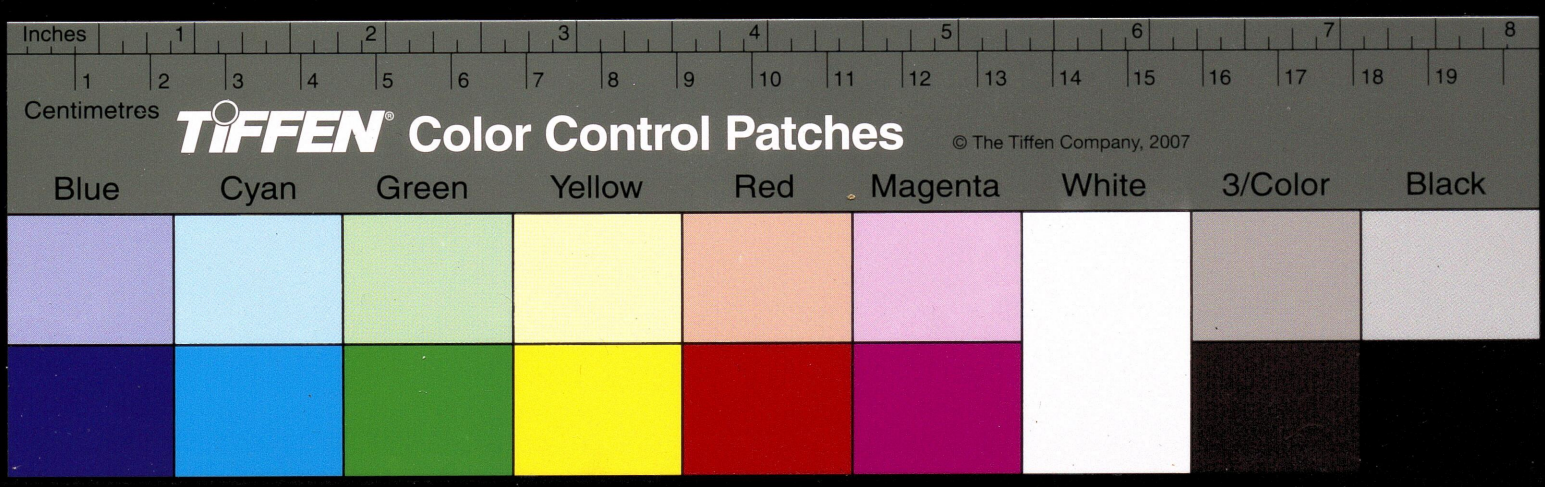
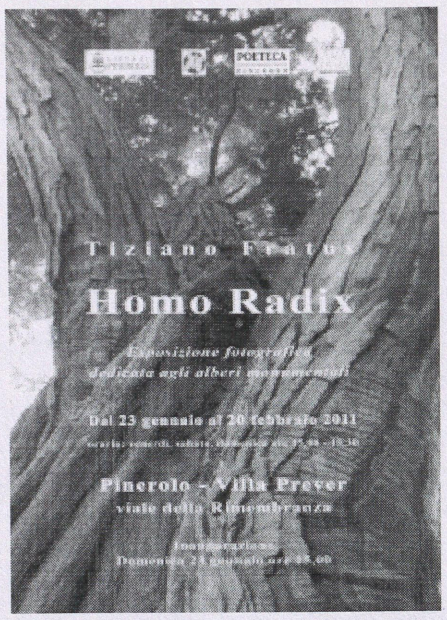
22 gennaio 2011

Inaugurazione mostra a Pinerolo





Domenica 23 gennaio si inaugura a **Villa Prever a Pinerolo** l'esposizione fotografica *Homo Radix* di **Tiziano Fratus**, parte del progetto che ha portato alla pubblicazione del volume *Homo Radix. Appunti per un cercatore di alberi.*
Ore 15.00 – intervengono il direttore della **Biblioteca civica di Pinerolo GianPiero Casagrande** e l'autore.

La mostra offre un tributo agli alberi secolari e monumentali che Fratus ha fotografato in diverse parti del mondo e d'Italia. Particolare attenzione ad alcuni degli alberi monumentali del Piemonte, oltre che scatti da Lombardia, Liguria, Lazio, Sicilia, Francia, Inghilterra, Germania, Stati Uniti e Singapore.

Gli alberi in mostra: *Platanus x acerifolia, Quercus crenata, Quercus virginiana, Calocedrus decurrens, Juniperus virginiana, Ficus macrophylla, Sequoia sempervirens, Quercus rubra, Acer rubrum, Magnolia Kobus, Ceiba pentandra, Fagraea fragrans, Castanea sativa, Quercus cerris, Platanus occidentalis, Taxus baccata, Olea europea, Ceratonia siliqua.*

L'esposizione restarà aperta fino al 20 febbraio 2011; sarà visitabile tutti i venerdì, sabato e domenica dalle ore 15 alle ore 18.30.

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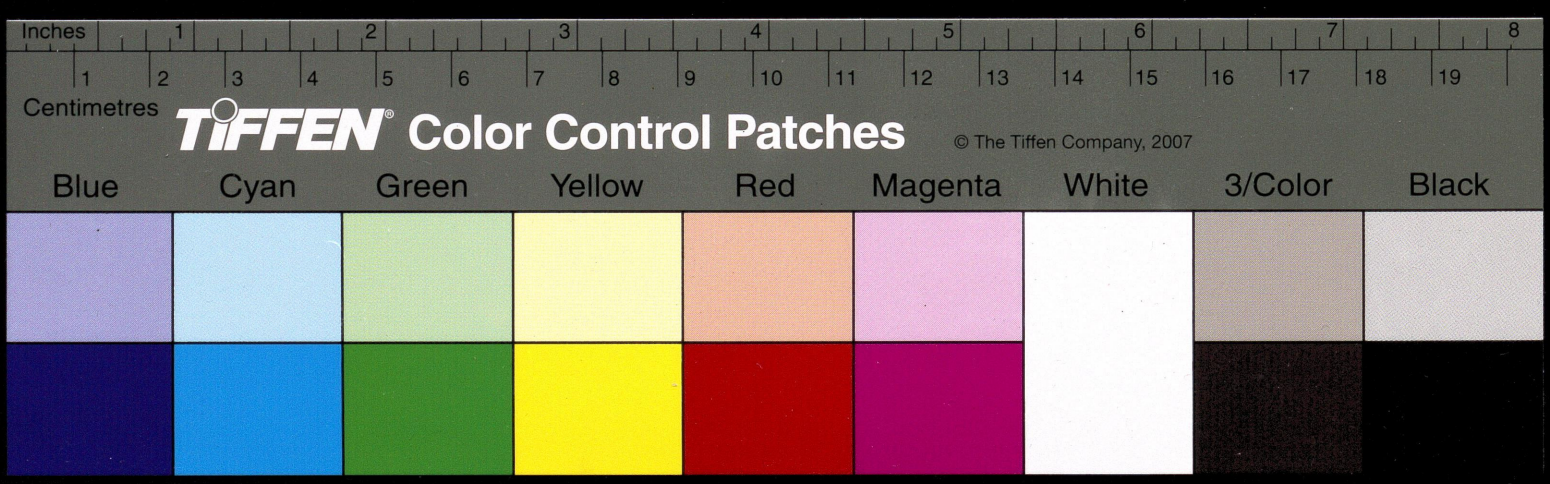
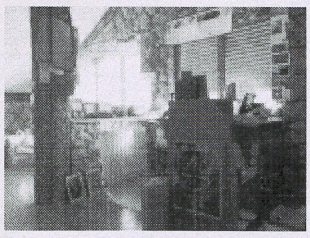
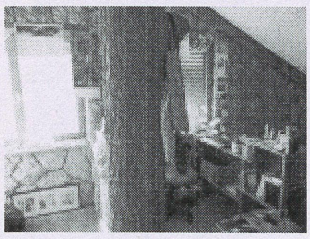
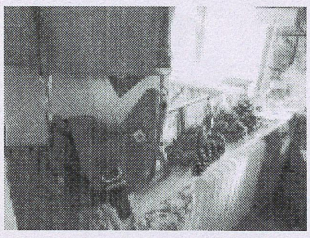
21 gennaio 2011

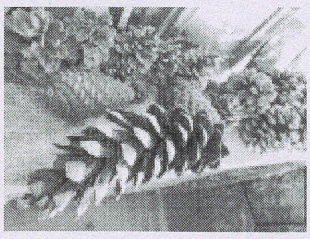
Casa del Leccio, studio d'uomo radice





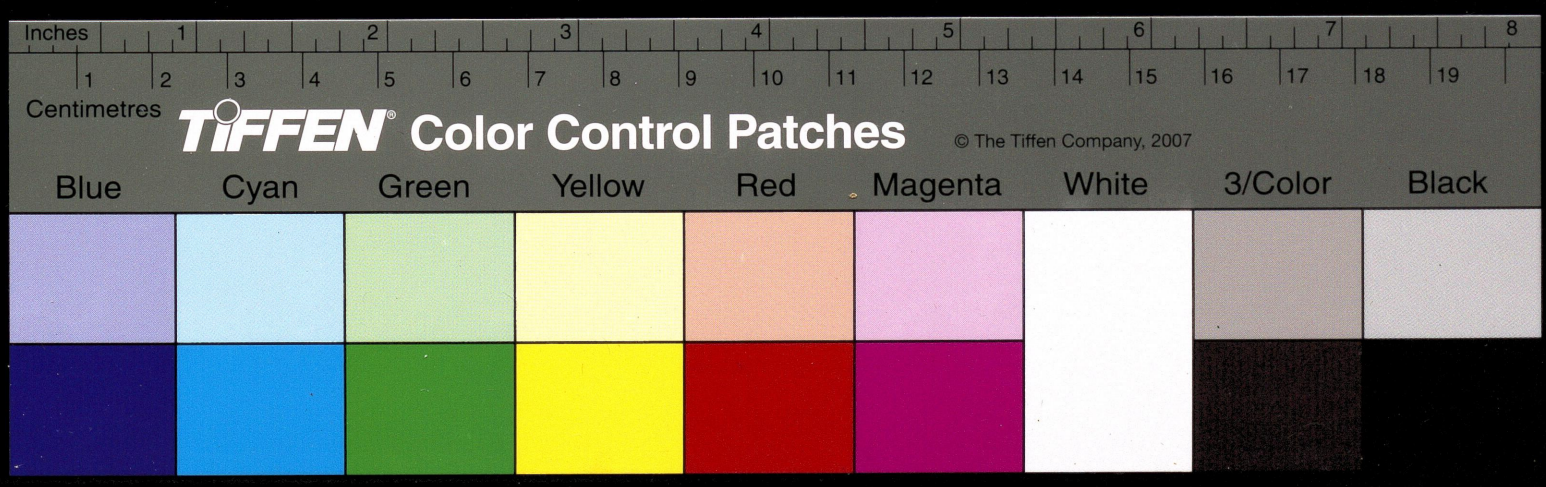






Trana, Casa del Leccio – Una piccola abitazione che sorge davanti ad un campo coltivato a grano, ai piedi di una collina nella Val Sangone, a nord ovest di Torino.
Alcuni scatti per vedere lo studio dell'uomo radice. Il luogo dove in parte è stato scritto *Homo Radix. Appunti per un cercatore di alberi*, da dove viene curato il presente sito, dove si stanno cucendo insieme le pagine e le fotografie del prossimo *Le bocche di legno. Cento alberi monumento di Torino e del Piemonte* e molti altri progetti che saranno battezzati nel 2011, anno internazionale delle foreste.

http://homoradix.wordpress.com/ 1/25/2011



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21 gennaio 2011

Sylva. Variazioni sulla foresta



Lorenza Zambon, l'attrice giardiniera che da diversi anni conduce il suo percorso teatrale cucendo parole ed emozioni dialogando con gli elementi naturali, celebrerà il nuovo anno, proclamato dall'ONU Anno internazionale delle Foreste, con lo spettacolo *Sylva. Variazioni sulla foresta*.
Vi si narra la Storia visionaria delle italiche foreste e si canta Il grande bosco profondo; si tesse L'elogio del gerbido e si contempla la vita andando a scuola dalla Foresta maestra; si scovano Foreste di città e ci si riscopre Per sempre selvatici.

Al monologo, che segue l'esperienza di altri suoi lavori realizzati in precedenza, come *Le lezioni di giardinaggio planetario* o *Sillabario della natura*, si propone, in alternativa, un programma di interventi, denominato **Il Villaggio mobile di azione artistica**: ne fanno parte la **Zambon**, gli **Universi sensibili di Antonio Catalano** e la sua installazione spettacolo Boschi-meraviglie; ci sarò io, l'**Homo radix** che vi proporrò gli *Appunti di viaggio per cercatori di alberi*, oppure il gruppo di ricerca musicale **Enten Hitti** con il loro *Sleeping Concert per dormire e sognare assieme sogni di foresta*, o il grande **Carlo Actis Dato** con i suoi *Verdi suoni*.

Una dichiarazione d'amore per un luogo. Una trama aperta ed adattabile che può accogliere presenze del posto, artisti, musicisti, ma anche dichiarazioni e "manifesti" su quello che state portando avanti. Un insediamento leggero, una giornata di preparazione e una giornata di festa (nessuna struttura, nessuna esigenza tecnica, nessuno spreco). Il luogo così com'è.

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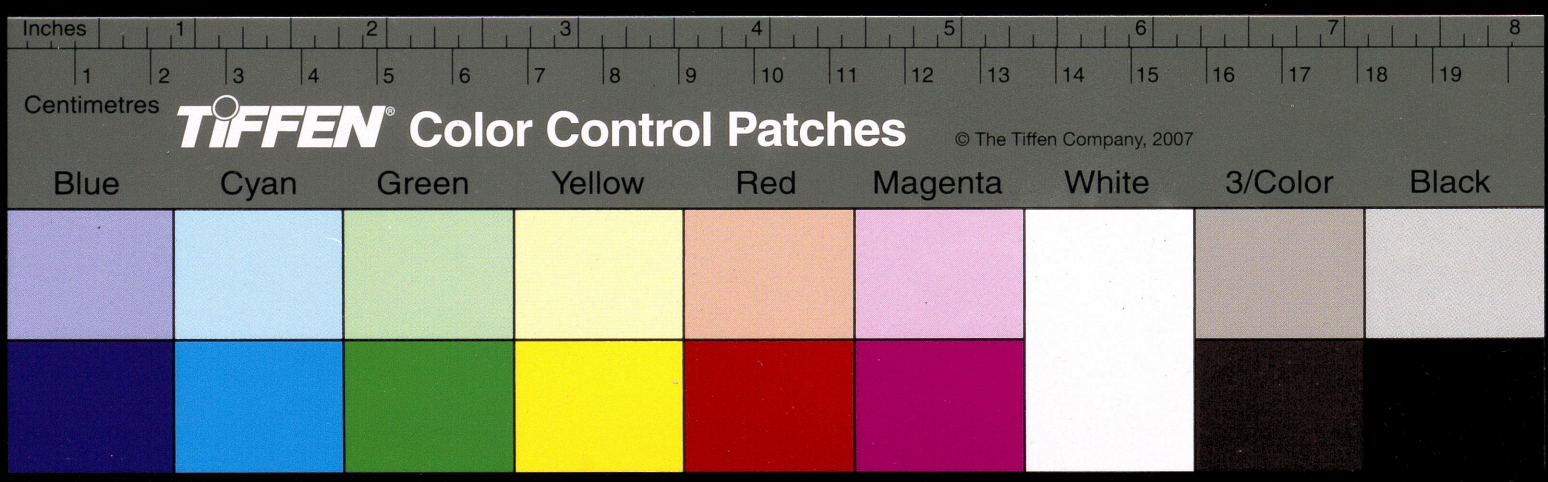

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20 gennaio 2011

Heritage Trees dei Kew Gardens



Settimana prossima speciale in cinque parti dedicato agli alberi monumentali (**Heritage Trees**) presenti all'Arboretum dei **Kew Royal Botanic Gardens** di Londra che ho visitato in dicembre.

Per i curiosi questo è il link al sito britannico con le schede degli alberi più interessanti da un punto di vista monumentale.

http://www.kew.org/plants/trees/heritage.html

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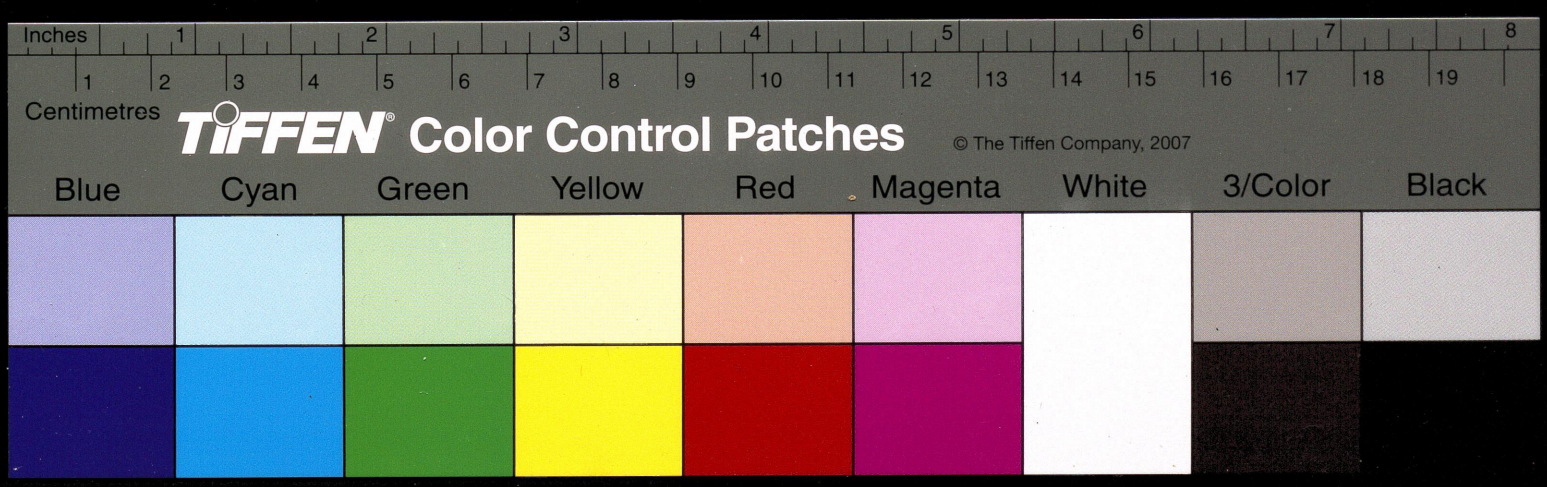
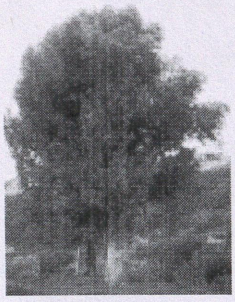
19 gennaio 2011

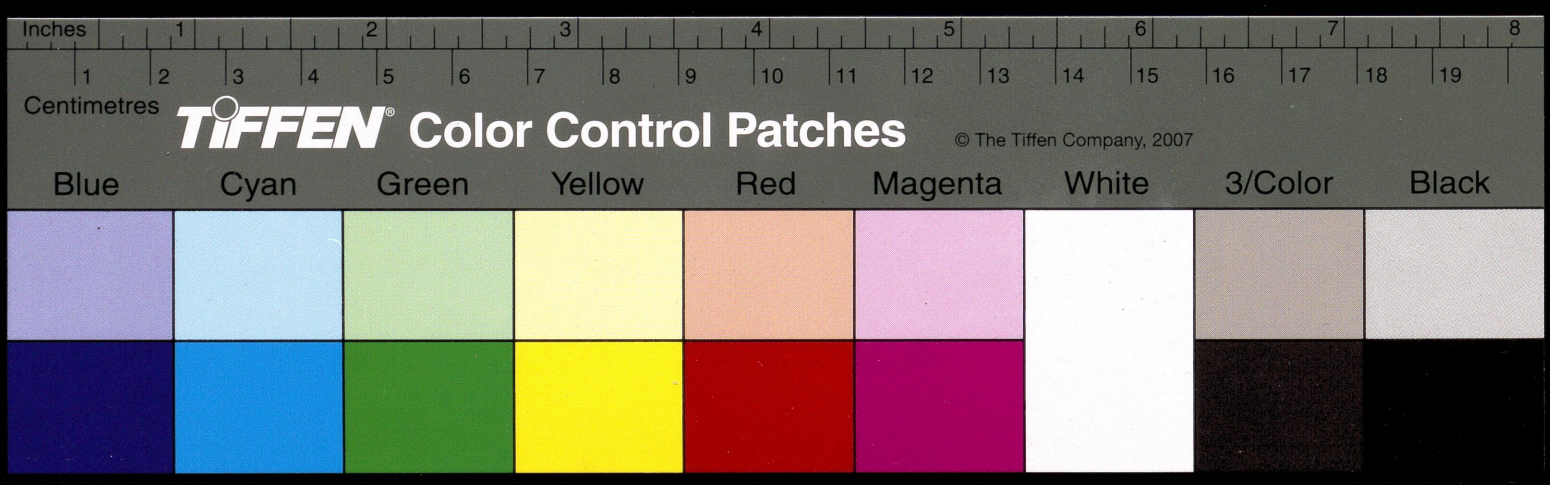
Storie di Eucalyptus







Dall'Australia arriva il romanzo *Eucalyptus* di **Murray Bail**, un vero best seller laggiù. E' stato tradotto anche in Italia e pubblicato da **Mondadori** ma con scarsissimo riscontro. Ho recuperato una copia del libro, che ho nell'edizione bitannica della **Harvill Press**, 1999.
Riassumento la storia è questa: nel Nuovo Galles del Sud un padre vuole far sposare la figlia, Ellen, decide di chiedere ai pretendenti di individuare le centinaia di specie di eucalipti che ha piantato nella propria proprietà: chi indovinerà tutti i nomi e le caratteristiche potrà chiedere in moglie la ragazza. Ovviamente questa architettura rappresenta uno stratagemma per poter introdurre nel corpus del romanzo diverse nozioni di carattere botanico e storico. Fra gli eucalipti *foecunda*, *punctata*, *beaniana*, *desertorum*, *cameronii*, *maculata*, *rudis*, *racemosa*, *barberi*, *forrestiana*, *platyphylla*, *socialis*, *diversicolor*, *decipiens*, *neglecta*, *elata*, *patellaris*, *liguata* e via così per decine e decine di altre varietà della famiglia.
Una frase mi ha molto colpita, sebbene risulti assolutamente spontanea per ogni cercatore di alberi – ma sarebbe lo stesso se fosse un cercatore di insetti, di rettili, di serpenti o di pietre: «*L'arte è imperfetta, diversamente la natura è casualmente perfetta.*»
Per noi italiani va ravvisata una curiosità patriottica: il primo fruttivendolo – FRUITOLOGIST – di Melbourne fu un italiano che si mise a vendere frutta nel quartiere di Carlton; aveva dipinto questa parola a lettere verdi fuori dal negozio, viveva in una stanza al piano sopra. La sua era la frutta migliore della città. Divenne molto popolare perché giocava con la frutta: componeva mappe dell'Italia o dello stato del Queensland, "scolpiva" vere e proprie statue con i frutti, tutte cose che piacevano molto alle donne del quartiere e della città. La storia più incredibile che viene raccontata su questo italiano da esportazione riguarda una bellissima donna che vide passare davanti alla vetrina del negozio, senza che lei si fermasse. All'ennesimo passaggio si dovette sorprendere parecchio nel riconoscersi raffigurata allo stesso modo in cui l'**Arcimboldi** aveva dipinto le sue stagioni con radici, tronchi, fiori, pesci, granchi, verdure e frutti: «*Mele*



affettate e datteri come naso; fronte di papaia; guancie di banana; denti scintillanti in melograno; per sopracciglia, kiwi; succose labbra di susina; mucchi di guava come orecchie; pere costituivano le sue spalle.» La ricostruzione era stata accuratissima, tranne per le iridi: erano rimaste vacanti, l'italiano non era infatti stato capace di individuare dei frutti blu come gli occhi della donna. Se non è poesia questa!

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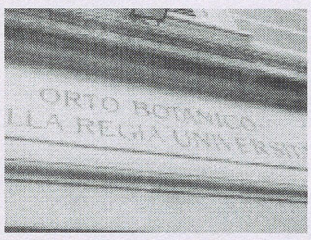
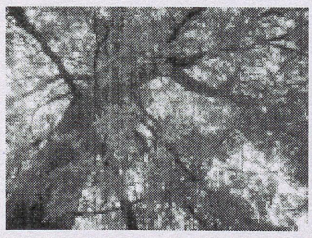
19 gennaio 2011

Orti botanici in Piemonte







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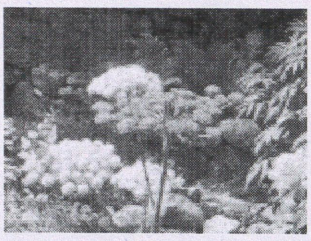
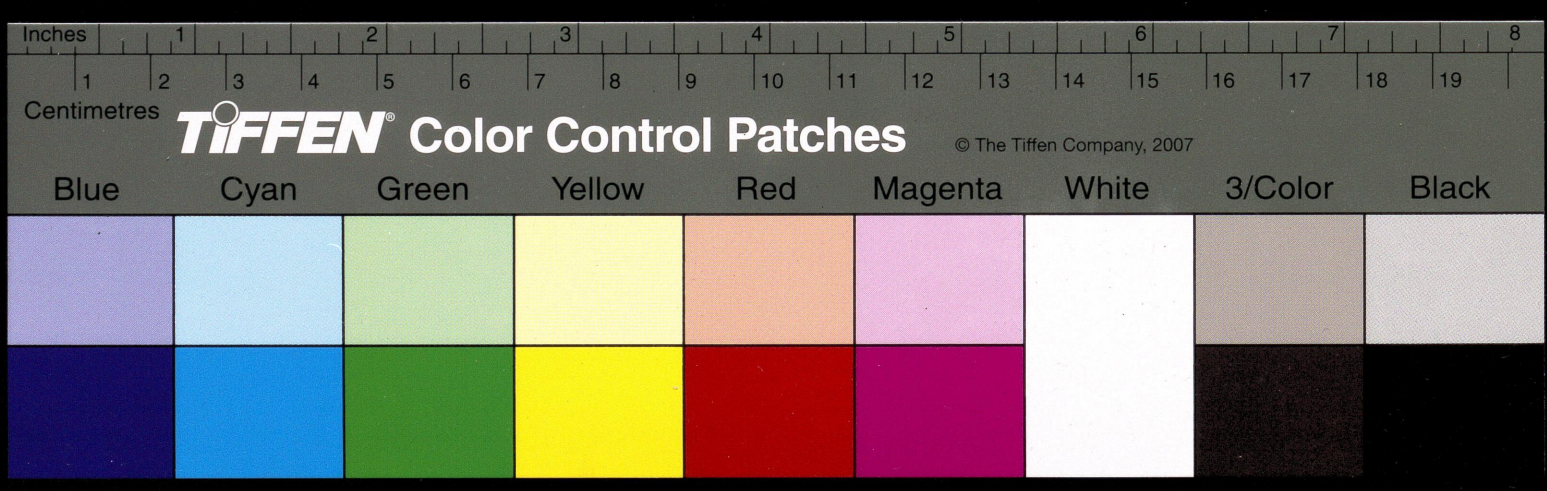


In Piemonte esiste una legge regionale, la numero 22 del 17 novembre 1983, *Interventi per la salvaguardia e lo sviluppo di aree di elevato interesse botanico*, che definisce degli elenchi relativi a luoghi di interesse botanico e naturalistico, pubblico e privato.
Tre sono gli elenchi previsti:
- Giardini storici di interesse botanico;
- Giardini botanici pubblici;
- Siti di interesse floristico-vegetazionale.

Nel 2009 è stato approvato il quinto aggiornamento dell'elenco ufficiale delle **aree di interesse botanico della Regione Piemonte**, sezione **Giardini botanici pubblici**, che ad oggi comprende diciassette realtà:
- Orto Botanico dell'Università degli Studi di Torino, Torino;
- Giardino Fenologico "C.L. Allioni", Ente di gestione Parco fluviale del Po – Tratto torinese, Cascina Le Vallere, Torino;
- Giardino Botanico Alpino "Zio Jonn", APS Associazione "Zio John", Pietraporzio;
- Giardino Botanico Alpino "Valderia", Ente di gestione Parco Naturale Alpi Marittime, Terme di Valdieri;
- Giardino Botanico Alpino "Bruno Peyronel", Comunità Montana Val Pellice, Colle Barant, Bobbio Pellice;
- Giardino Botanico Alpino "Alpinia", Consorzio Giardino Alpinia, Località Alpino, Stresa;
- Giardino Botanico Rea, Settore Museo Regionale di Scienze Naturali ed Ecomusei, San Bernardino di Trana;
- Giardino Botanico Montano "N.S. di Oropa", WWF Biellese, Oasi Giardino Botanico Centro Studi di Oropa, Biella;
- Centro per la Biodiversità Vegetale, Stazioni Botaniche Alpine "Danilo Re" e "Burnat Bicknell", Ente di gestione Parchi e Riserve naturali Cuneesi, Rifugio P. Garelli, Chiusa di Pesio;
- Arboreto "Prandi" loc. Schioda, Comune di Sale San Giovanni, Località Schioda, Sale San Giovanni;
- Parco Botanico Fraz. Piazza di Torre Mondovì, Comune di Torre Mondovì, Località Castello, Frazione Piazza, Torre Mondovì;
- Giardino Roccioso del Valentino, Comune di Torino, Settore Gestione Verde, Torino;
- Arboretum Taurinense, Comune di Torino, Settore Gestione Verde, Colle della Maddalena, Torino;
- Oasi Naturalistica Villarey, Associazione Europea di Medicine Tradizionali A.E.ME.TRA. Prascorsano;
- Giardino Botanico Alpino Alpe Fum-Bitz, Ente di gestione Parco Naturale Alta Val Sesia, Alpe Fum Bitz,



Alagna;
- Orto botanico delle specie aromatiche e officinali, Comune di Chiaverano, Santo Stefano in Sessano, Chiaverano;
- Giardino delle Aromatiche della Val Sarmassa, Ente di gestione Parchi e Riserve naturali Astigiani – R.N.S. della Val Sarmassa, Località Casotto di Ulisse (Vinchio), Vagli Serra e Vinchio.

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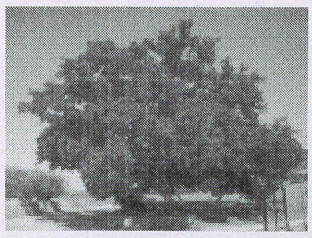
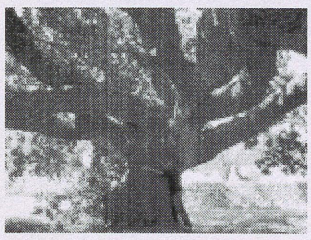
18 gennaio 2011

La roverella di Borgata Muti







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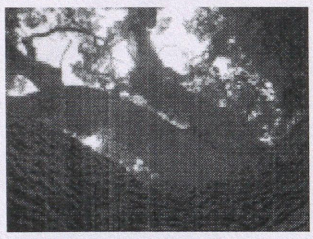
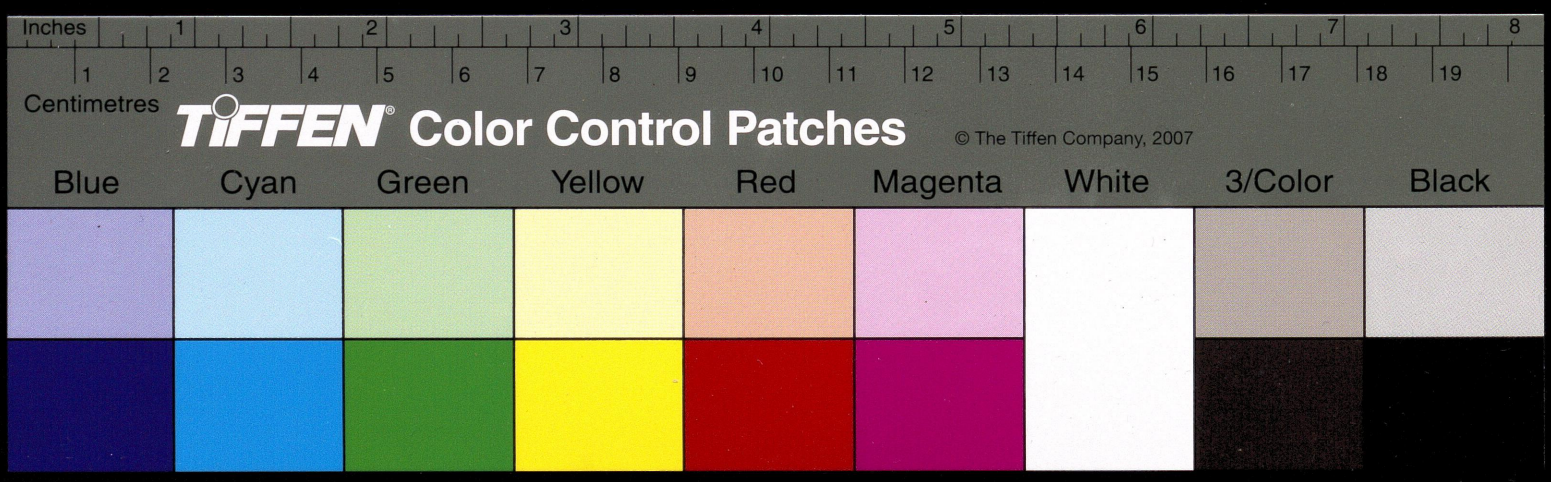


Ricordo ancora con grande piacere e nostalgia il tour siciliano che feci lo scorso settembre, per presentare in alcune librerie il mio *Nuova Poesia Creaturale* e, al contempo, per visitare diversi alberi monumentali presenti nell'isola, dal castagno dei cento cavalli ai ficus dell'**Orto botanico di Palermo**.
Uno degli alberi che più mi ha impresssionato è stata la roverella di **Borgata Muti**, di cui potete vedere alcune fotografie.
Borgata Muti è situata nella splendida provincia ragusana, ricca di orti, colline, muri a secco, e di alberi plurisecolari come carrubi e ulivi. E' parte del comune di **Chiaramonte Gulfi**, e si raggiunge seguendo la strada asfaltata che attraversa la borgata.
Con due cari amici visitammo quest'area, spiluccando le mandorle dai rami più bassi per spaccarne il guscio schiacciandole con alcune pietre: un gusto delizioso. Un cielo dipinto, a maniche corte, con un vento tiepido che saliva dalla terra, alcuni ulivi di cinquecento anni che fiorivano ai lati della strada, nei cortili delle abitazioni o in appezzamenti di terreno occupati da piante da frutto, come i fichi. Insomma una buona approssimazione del paradiso... In questo contesto siamo giunti alla base del tronco di questo esemplare di *Quercus amplifolia*, che cresce dritto fino a circa due metri e mezzo di altezza per poi svilupparsi improvvisamente in un'onda di grosse branche primarie che oscillano da una parte per poi sfuggire in alto dalla parte opposta.
Le misure sono queste: tronco ad altezza d'uomo di 435 cm, altezza diciotto metri.
Età stimata: fra i trecento ed i quattrocento anni.
Ho scoperto questo albero grazie ai materiali del volume *I grandi alberi di Sicilia*, curato da **Rosario Schicci** e **Francesco M. Raimondo**, quest'ultimo direttore dell'Orto botanico di Palermo, pubblicato nel 2007 dall'**Azienda Regionale Foreste Demaniali della Sicilia**, con fotografie di **Massimo Lo Verde**.
Dal medesimo libro traggo queste curiosità: «*A questa pianta è legata una curiosa leggenda dalla quale probabilmente potrebbe derivare il nome della contrada Muti. Si narra che un contadino, addormentatosi profondamente all'ombra della grande quercia, vide in sogno una luce abbagliante e udì una voce misteriosa che gli fece una profezia: se al tramonto del terzo giorno avesse scavato ai piedi dell'albero avrebbe rinvenuto una "truvatura", cioè un forziere di monete d'oro. L'unica condizione che la misteriosa fonte gli pose era di non confidarsi con nessuno. Tuttavia, l'uomo molto turbato, ne parlò alla moglie che lo invogliò a cercare subito il tesoro, per evitare che altre persone ne potessero venire a conoscenza. Quindi, scavarono invano per tutta la notte, fino a quando all'alba ricomparve la luce e i due contadini da quell'istante rimasero senza parola per tutta la vita. Per conservare questo stupendo esemplare, secondo*



quanto riferisce un vecchio contadino del luogo, è stato addirittura deviato il tracciato della strada per contrada Muti. L'aspetto del fusto sul lato nord-ovest è quello di un elefante. L'albero è uno dei punti più ambiti per foto di matrimonio».

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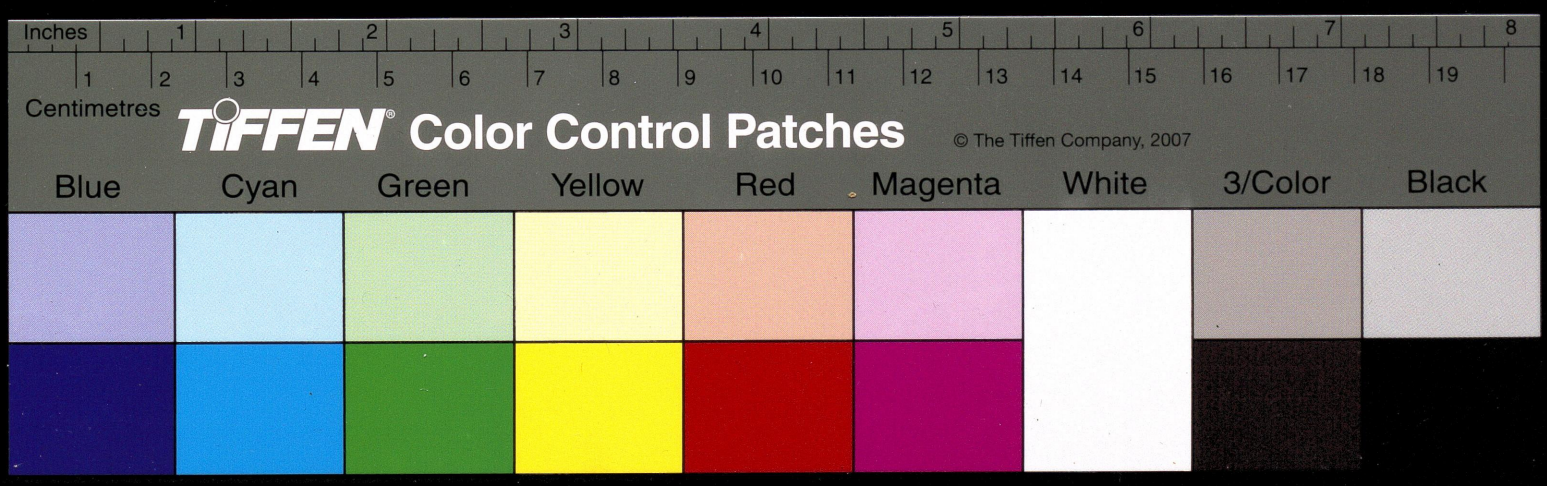

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