

THE STORY OF
GRAPHIC
DESIGN

TEXTBOOK FOR CLASS XI

THE STORY OF
GRAPHIC
DESIGN

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एन सी ई आर टी
NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
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FOREWORD

The National Curriculum Framework (NCF)–2005, recommends that children's life at school must be linked to their life outside the school. This principle marks a departure from the legacy of bookish learning which continues to shape our system and causes a gap between the school, home and community. The syllabi and textbooks developed on the basis of NCF signify an attempt to implement this idea. They also attempt to discourage rote learning and the maintenance of sharp boundaries between different subject areas. We hope these measures will take us significantly further in the direction of a child-centred system of education outlined in the National Policy on Education–1986.

One of the key recommendation of the NCF is to increase the number of options available at the senior secondary level. Following this recommendation, National Council of Educational Research and Training (NCERT) has decided to introduce certain new areas highlighted in the NCF for their potential for encouraging creativity and interdisciplinary understanding. The present textbook attempts to provide a new pedagogic approach to the specialised study of Graphic Design. This approach focuses on combining background knowledge with practical experience.

This initiative can succeed only if school principals, parents and teachers recognise that given space, time and freedom, children generate new knowledge by engaging with the information passed on to them by adults. Treating the prescribed textbook as the sole basis of examination is one of the key reasons why other resources and sites of learning are ignored. Inculcating creativity and initiative is possible if we perceive and treat children as participants in learning, not as receivers of a fixed body of knowledge.

These aims imply considerable change in school routines and mode of functioning. Flexibility in the daily time-table is as necessary as rigour in implementing the annual calendar so that the required number of teaching days is actually devoted to teaching. The methods used for teaching and evaluation will also determine how effective this textbook proves for making children's life at school a happy experience, rather than a source of stress or boredom. Syllabus designers have tried to address the problem of curricular burden by restructuring and reorienting knowledge at different stages with greater consideration for child psychology and the time available for teaching. The textbook attempts to enhance this endeavour by giving higher priority and space to opportunities for contemplation and wondering, discussion in small groups, and activities requiring hands on experience.

NCERT appreciates the hard work done by the syllabus and textbook development committee. The work for developing this interactive textbook was challenging and the painstaking efforts by its Chief Advisor, Shri Krishan Ahuja are praiseworthy. We are indebted to the institutions and organisations, which have generously permitted us to draw upon their resources, materials and personnel. We are especially grateful to the members of the National Monitoring Committee, appointed by the Department of Secondary and Higher Education, Ministry of Human Resource Development under the Chairpersonship of

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Professor Mrinal Miri and Professor G.P. Deshpande, for their valuable time and contribution. As an organisation committed to systemic reform and continuous improvement in the quality of its products, NCERT welcomes comments and suggestions which will enable us to undertake further revision and refinement.

New Delhi
December 2008

Director
National Council of Educational
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PREFACE

The National Curriculum Framework (NCF)–2005, emphasises the “importance of multiplicity and fluidity of optional subjects at the senior secondary level...” Considering the need the National Council of Educational Research and Training (NCERT) in consent with Central Board of Secondary Education (CBSE) has decided to introduce ‘Graphic Design’ as an optional subject for Classes XI and XII at par with other subjects. Accordingly, the NCERT has developed a Graphic Design course for senior secondary level. This course is being offered to those who have passed Class X or equivalent examination, with or without Art/Drawing/Painting as a subject.

In our day-to-day life we are surrounded by information: logos, signs, symbols, visual images, textual messages and so on. While travelling in a bus, for instance, we see the road, the traffic, and the ‘traffic signs’. Some information is important while some other is not. Some information makes sense to us, other does not. Our eyes and mind are highly selective and always look for information in the surrounding that is useful, meaningful and captures attention that is properly designed or interesting.

This book on ‘Graphic Design’ for Class XI is about enhancing visual awareness and design sensitivity. Everyone of course, uses her/his visual awareness to some extent but graphic designer goes beyond it and is specially trained to get deeper insights into designing information around us in a best possible way. The crafts of ‘how to design’ is not the only concern of this book. The book is about understanding the development and philosophy of graphic art, design and graphic design.

As every student is unique and has different needs similarly the subject of graphic design cannot be taught, like other subjects. Graphic design is taught through the method called ‘Learning by Doing’. A student goes through the whole course of carefully worked out exercises, practical and projects and at the end develops insights about graphic design. At every instance, teacher monitors growth and development of student by looking at individual needs and requirements and by giving personal attention. In the process student learns and get motivation to generate creative ideas, visualisation of creative concepts, use of appropriate medium and materials; and also learns the visual language of graphically expressing and communicating. At the end of the course of Class XI, the student will be capable of understanding various theoretical concepts as well as would have gained sufficient experience of expressing and communicating through graphic design. The students are expected to yearly submission of portfolio consisting of selected works (at least 20) produced during the year. The works should be rich in terms of material exploration and visual impact.

Graphic design has great potential in developing aesthetic sensibility, creativity and skills. The experience and skills gained through this course at school level, may lead students to pursue the subject at higher education since most of the art or art-related institutions offer the opportunity to do a masters level programme in this area to produce a work force. The aesthetics teaches to

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appreciate a work of art. In this age of information technology, if the technical knowledge is combined with creative thinking and execution, there awaits a golden age for creators and graphic designers.

The course is not only linked with the opportunities for higher studies at university level but is also designed to help students to find employment avenues in different fields, institutions, organisations, agencies working for print and non-print media. After leaving school they can get associated with graphic design studios or produce original works of graphic design to become self-reliant.

The Council is grateful to those who have contributed to the development of this textbook. The utility of this book could, of course, be judged by its users, mainly the students, teachers and parents. Their comments, observations and criticism would be greatly valued by NCERT and will certainly help in bringing out a revised version at an appropriate time in future.

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PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a **SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

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The Story of Graphic Design is the result of a collective efforts of a large number of professionals, educationists, school teachers, editors and designers. Each unit is shared, discussed and revised over months of rigorous exercise. National Council of Educational Research and Training (NCERT) thanks all who participated in the process. We thank in particular the members of Textbook Development Committee for their valuable suggestions in developing this textbook: Professor Bhuleshwar Mate, *Pro Vice Chancellor*, Assam University Diphu Campus, Assam; Shri Dattatraya Apte, Design and Display Division, ITPO, New Delhi; Shri G. Vinod Kumar, Delhi Public School, R K Puram, New Delhi; Shri Pulak Dutta, Department of Graphic Art, Kala Bhavan, Vishva Bharti, Shantiniketan, West Bengal and Dr Ram Babu Pareekh, *Lecturer*, Regional Institute of Education, NCERT, Ajmer.

The contributions for reviewing the manuscript by Professor M. Vijayamohan, *Principal*, College of Art, Tilak Marg, New Delhi, Professor Nagaraj Paturi, FLAM, Pune, Anjan Bose, Tagore International Public School, New Delhi; and R. S. Akela, Government Boys Secondary School, Matia Mahal, Jama Masjid, Delhi are also acknowledged. The contribution of Central Board of Secondary Education (CBSE) in developing portfolio assessment is also acknowledged.

The ideas drawn upon from existing printed materials are also acknowledged: *A History of Graphic Design*, Philip B. Meggs, 2nd ed., New York, Van Nostrand Reinhold, 1992; *The Oxford Companion to Art*, Harold Osborne, Oxford, Clarendon Press, 1970; *Indian Symbology (Ed.)*, Professor Kirti Trivedi, I.D.C., Indian Institute of Technology, Mumbai, 1987; *Indian Language: Font Designing and Font Technology*, Professor R. K. Joshi, Vishwabharat@tdil, April 2005 Journal (online Journal by Ministry of Information Technology, Government of India); *A History of Graphic Art*, James Cleaver, Peter Owen Limited, 50 Old Brampton Road, London SW 7, 1963; *Bhartiya Chhappachitrakala: Aadi Se Aadhunik Kal Tak*, Sunil Kumar, National Book Trust, India and Bhartiya Kala Prakashan, Delhi, 2000; *Indian Art, A Concise History*, Roy C Craven, Thames and Hudson Ltd. London, 1976; Reprinted 1995 (Previously published as *A Concise History of Indian Art*); *Tribal Art of Middle India*, Verrier Elwin, Oxford University Press, 1951; *Banglar Vrata*, Abanindranath Tagore, Visva Bharati Press; *Madhubani Painting*, Upendra Thakur, Abhinav Publication; *Indian Printed and Painted Fabrics*, John Irwin and Margret Hall and paper presentations of Anil Sinha and Sujay Mukherjee.

During the preparation of this book various information were collected from different World Wide Web sites. There are also acknowledged.

- ☐ http://tdil.mit.gov.in/apr_2005.htm
- ☐ <http://www.cyberkerala.com/kalamezhuthu/index.html>
- ☐ <http://india.gov.in/knowindia/kalamezhuthu.php>
- ☐ <http://www.expresstextile.com/20050228/perspectives01.shtml>
- ☐ Wikipedia, free encyclopedia

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- ▣ www.bradshawfoundation.com
- ▣ [http:// www.indiancultureonline.com/details/Pithora-Paintings.html](http://www.indiancultureonline.com/details/Pithora-Paintings.html)
- ▣ “Mandala”, Microsoft® Encarta® Online Encyclopedia 2008
- ▣ [http:// encarta.msn.com](http://encarta.msn.com) © 1997-2008 Microsoft Corporation.

We have made every effort and care to acknowledge credits, but we apologise in advance for any omission that may have inadvertently taken place and is unintentional.

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CREDIT FOR VISUALS

UNIT I

Pages 2 and 3 - Sunil Kumar; *Figure 1.5* - www.luffman.us/bobjones/bob-J1.htm; *Figure 1.7* - *Flags* Websters's *International Encyclopedia*; *Pages 12 and 13* - *Beggars receiving Alms* Etching by Rembrandt, *A History of Graphic Art*, James Cleaver, 1963; *Figure 2.1* - *Websters's International Encyclopedia*; *Figure 2.2* - www.incredibleindya.in/.../2007/12/bhima.jpg; *Figure 2.3* - *Los Caprichos* Aquatint by Goya, *A History of Graphic Art*, James Cleaver, 1963; *Figure 2.4* - Anil Sinha; *Figure 2.5* - Sunil Kumar; *Figure 3.24* - *The Scream* Edvard Munch, 1893, National Gallery, Oslo, *The Great Artist*, A Marshall Cavendish Weekly Collection, 74, UK; *Figure 3.33* - *Last Supper* Leonardo da Vinci, 1495-97

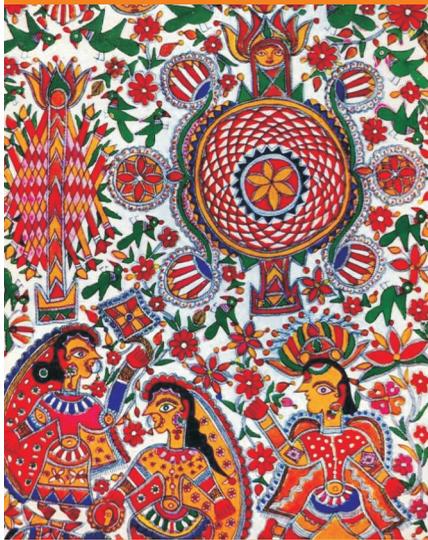
UNIT II

Figure 4.1 - Sunil Kumar; *Figure 4.5 and 4.10* - *Tribal Art of Middle India*, Verrier Elwin, Oxford University Press, 1951; *Figure 4.11, 4.12, 4.13 and 4.14* - Sunil Kumar; *Pages 52 and 53* - *Kolam* www.foodlah.com; *Figure 5.2* - Professor Nagraj Paturi; *Figure 5.5 and 5.6* - Sujay Mukherjee; *Figure 5.7, 5.8 and 5.9* - www.foodlah.com; *Figure 5.10* - www.kalamkariart.org/index.php; *Figure 5.11* - www.oac.cdlib.org/fowler/F2E23434BA.jp; *Figure 5.12 and 5.13* - *Tribal Art of Middle India*, Verrier Elwin, Oxford University Press, 1951; *Figure 5.14* - www.ethnicpaintings.com/indian_painting_styles/pithora-paintings.html; *Figure 5.15*: Professor. Nagraj Paturi; *Figure 5.16 and 5.17* - "Mandala," Microsoft® Encarta® Online Encyclopedia 2008 and [Http://en.wikipedia.org/wiki/Mandalas](http://en.wikipedia.org/wiki/Mandalas)

UNIT III

Figure 6.2 - www.ancientweb.org/India/; *Figure 6.4 to Figure 6.7* - Sunil Kumar; *Figure 6.8* - www.hua.umf.maine.edu/MagnaCarta/index.html; *Figure 6.9* - chinesecalligraphystore.com/catalog/chinese-1; *Figure 7.1* - Sunil Kumar; *Figure 7.11* - Calico Museum, Ahmedabad; *Figure 7.12* - www.estatelegacyvaults.com/elv/cool_nifty_great/; *Figure 7.13* - *Earliest wood cut, 1423*, *Processes of Graphic Reproduction in Printing*, Harold Curwen, Faber and Faber Ltd, London, MCMXLIX; *Figure 7.18* - Georgetown Frame Shoppe, 2902-1/2 M St. NW Washington, DC

DEFINING STUDY



This book on Graphic Design for Class XI is about developing visual understanding and sensitivity towards design. The crafts of 'How to Design' is not the only concern of this book but exposes through the method called 'Learning by Doing'. To make it possible that students go through the whole course of carefully worked out exercises, practicals and projects, documentation of work in a portfolio is suggested in the study. Portfolio will provide an opportunity to teachers at every instance to monitor the growth and development of students by looking at an individual's creative work and giving personal attention. In the process students learn and get motivation to generate creative ideas, visualisation of creative concepts, use of appropriate medium and materials.

A portfolio is a purposeful collection of student's work that exhibits student's efforts, progress, and achievements in overall areas of the curriculum. The portfolio needs to be maintained by the student throughout the year. It reflects the growth in thinking, evolution in creative skills and a change in attitude and values of the learner through the class assignments, home-work, projects, documentation, field-trip reports and other educational task assigned. Each chapter of the book contains 'Practical Activities' that have been earmarked for inclusion in the portfolio. A portfolio helps learners to think about their creative ability as well as their observation and execution skills. It helps them to reflect on their work in progress and make judgments about the quality of their own work in consultation with the teacher.

The Specific Objectives of a Portfolio

To enable a student to develop the ability to:

- ▣ create, document and preserve an original body of graphic design works;
- ▣ think critically about it;
- ▣ continuously reflect on one's own work in terms of elements and principles of graphic design;
- ▣ monitor and assess one's creative abilities over a period of time through the designs produced;
- ▣ identify one's own strengths and weaknesses in creating works of graphic design.

What Contains a Portfolio?

A portfolio represents a collection of student's best graphic design works as well as the best efforts, including the drafts, rough-sketches, scribbles and drawings as an evidence of gradual growth and development towards mastering the skills. It is a documentation of students' journey towards imbibing creative skills required for graphic design.

Although there are many variations of portfolio building, most of them fall into two basic types - process portfolios and product portfolios. These are not the only kinds of portfolios, even also not of pure types, hence are not clearly distinct from each other.

STEP 1: The first step is to develop a process portfolio, which documents growth of a student over time towards the desired objectives clearly spelt out in the curriculum. Documentation includes the statement of a design problem given to students or the 'brief' given to students, contextual description if any, description by students about how to approach and tackle the design problem, evaluation criterion, scribbles and doodles—since doodles are the wheels of thought and therefore, their documentation mirrors students' thought process, all the rough sketches, student's honest reflections about the assignments or projects, etc. teachers' comments on the work, written remarks or corrections on students' works.

STEP 2: The next step is to develop a product portfolio also known as a 'best works portfolio'. These include finished works which demonstrate attainment of students skills and capabilities as a graphic designer. The student, either individually or with the help of teachers or parents, are involved in selecting the 'best works' and therefore the selection of 'best works' is also a part of learning process. Always there are two types of criteria - firstly, certain criteria are clearly spelt out before beginning of the assignment. Secondly, the principles of graphic design discussed in the textbook are the default criteria applicable to all the projects and assignments. So, students should select their 'best works' accordingly.

These two steps of portfolio building are crucial. However, sufficient freedom is given to students to build portfolio in an innovative way. If student shows an inclination for innovation or explicitly expresses the desire to build a unique portfolio then student is encouraged by the teacher to do so.

Distinguishing Characteristics of a Portfolio

Originality

The assignments and projects, etc. documented and preserved in the portfolio should be based on the textbook. All the works in the portfolio should be checked and signed by the teacher.

Flow and Continuity

An important feature of portfolio is that the works are added at many points in time during the entire period of the curriculum. Rather than including only the best works, the portfolio includes examples of different stages of mastery. At least some of the works should be self-sufficient, if possible, to show the growth of the student. This allows a much richer understanding of the process of learning.

Explicit Criteria of Evaluation

The students are told in advance what is expected of each assignment or project, etc. so that students can organise the portfolio accordingly and also it will have positive impact on quality of work.

Integration and Application

Portfolio should establish a correspondence between academic activities and life. Teachers have a larger role to play in this regard along with students. Students are asked to demonstrate how they can apply their skills and knowledge achieved through assignments and projects, etc. to real-life situations.

A well-designed portfolio reflects the effectiveness of teacher's intervention at the same time it shows the growth of the learner. It also serves as document worth sharing with family, friends and community members.

Portfolio Assessment: Self assessment

Self-assessment is the best way to assess a portfolio by the student. Self-assessment improves students' ability to assess their strengths and weaknesses in creative process and their progress in related areas. It helps share their experience of growth and improvement and their awareness of what they know, what they are learning, areas and skill that need improvement and so forth. Students learn how to interact effectively with their teachers and parents to gain an even fuller picture of their own achievements and progress. For students to use portfolio assessment to grow in their understanding of themselves as learners, they need guidance and support from their teacher. It is a good idea to allow students to prepare a self-assessment report based on the portfolio that can be considered by the evaluators at the time of assessment.

Portfolio Assessment: by Teachers/Evaluators

While assessing student portfolio, evaluators need to take into account the self-assessment done by the student. Evaluators may agree or disagree with it; however, there should be a mention of it in the final assessment.

Portfolio assessment is a multi-faceted process characterised by the following qualities:

- ▣ It is continuous and ongoing process, providing both formative and summative opportunity for monitoring student's progress toward achieving the objectives.
- ▣ It provides for collaborative reflecting, including ways for students to reflect about their own thinking process and introspection as they monitor their own comprehension, reflect upon their approaches to graphic design, problem-solving, designedly decision-making and observe their own emerging understanding of subjects and skills.
- ▣ It focuses upon student's experiential learning as well as their acquisition of key knowledge, skills and attitudes.
- ▣ Portfolio contains samples of work that stretch over an entire evaluation or study period, rather than one time evaluation at the end of the study.
- ▣ Portfolio contains works that represent a variety of different assessment criteria specific to different assignments and projects, etc.
- ▣ Portfolio contains a variety of works and appreciation and assessment of the work by the students, peers, teachers and parents is always possible.

For thoughtful evaluation to take place, teachers must have multi-dimensional criteria of assessment to evaluate student's progress. Criteria for a finished portfolio might include the following:

- ▣ Thoughtfulness including evidence of students' monitoring of their own comprehension, reflection, and overall thinking style.
- ▣ Novelty, originality and uniqueness are the main guiding criteria.
- ▣ Communicability of design, usefulness and usability, robustness of design is valued.
- ▣ Sense of beauty, elegance and spontaneity is evident through the work.
- ▣ Precision, accuracy and craftsmanship are demonstrated in the work.
- ▣ Growth and development in relationship are key to curriculum skills and indicators specific to each assignment and projects, etc.
- ▣ Understanding and application of key concepts and skills acquired.
- ▣ Completeness, correctness, and appropriateness of tasks and methods presented in the portfolio.
- ▣ Application and exploration of principles of graphic design such as visual balance, proportion, contrast, harmony, rhythm, centre of interest, etc. as discussed in the textbook.

It is especially, important for teachers and students to work together to prioritise those criteria that will be used for various assignments and projects as a basis for assessing and evaluating student's progress, both formatively and summative. As the school year progresses, students and teachers can work together to identify especially significant or important

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activities in addition to those given in the textbook and to be captured in the portfolio. Finally, some form of discussion or investigation is done as part of the summative evaluation process.

The syllabus document clearly states that 20 marks will be earmarked for Portfolio Assessment. These are meant for continuous assessment and student will need to attempt the activities given at the end of each chapter of all units. To ensure that the portfolio is taken seriously the CBSE/Public School Examination Board has also provided for an external monitoring mechanism by experts to be nominated by the Examination Board on a random sampling basis.

Further Defining

Apart from exercises and practicals at the end of each chapter the book contains boxes, activities and projects. Box is meant to enrich the learning process, but not for evaluation. Activities, visits, projects and practicals will form part of portfolio and evaluated.



The book also provides an exhaustive bibliography with technological terminologies used in Graphic Art and Design. Bibliography will enhance the understanding of graphic design subject. A tentative list of art institutions is also part of book. The list may be helpful in providing information to the students who wants to persue higher studies in art.

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