

NEPAL

**Basic and Primary Education Programme II
Establishment of a Professional Publishing Capacity for BPEP II**

**Seminar 11: Design and DTP
22 November - 10 December 1999**

**Trygve Hansen
Shirley Parfitt**

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Shirley Parfitt**

International Book Development Ltd
305-307 Chiswick High Road
London W4 4HH
Tel: (+ 44 181) 742 7474
Fax: (+ 44 181) 747 8715
e-mail: ibdLtd@compuserve.com

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1. INTRODUCTION

The seminar on Design and DTP was the 11th in the series supporting the development of professional publishing skills within the Basic and Primary Education Programme Phase II (BPEP II). The design specialist visited for three weeks (21 November – 11 December 1999) and the DTP specialist for two weeks (28 November – 11 December 1999) to work in the Primary Publishing Cell at Sano Thimi.

Both consultants wish to express their thanks to all members of staff at the PPC whom the consultants had the privilege to meet and/or work together with during the consultancy. The Design Manager, Navindra Rajbhandari, and his team were particularly committed to this training at a time when their workload was very demanding. The consultants would like to express their appreciation.

Abbreviations

BPEP II	Basic and Primary Education Project, Second Phase
CRC	Camera Ready Copy
DTP	Desk Top Publishing
IBD	International Book Development Ltd
JEMC	Janak Education Materials Centre
MOE	Ministry of Education
PPC	Primary Publishing Cell

2. EQUIPMENT IN PLACE

The Design Section of the Primary Publishing Cell has the following equipment:

Hardware

- 6 Apple PowerMacs
- 3 21" monitors
- 3 16" monitors
- 1 Agfa Scanner Duoscan
- 1 LaserPrinter (Apple LaserWriter 8500 / 600 dpi)
- 1 Inkjet colour printer.

Software

- PageMaker 6.5
- Photoshop 5.5
- Macromedia Freehand
- Textbridge Optical Character Recognition

The following textbooks were purchased in UK and delivered to the PPC:

Quickstart Guide PhotoShop 5 by Ted Alspach, published by Peachpit Press
Quickstart Guide PageMaker 6.5 by Ted Alspach, published by Peachpit Press

3. TRAINING

The participants for training were:

Mr Navindra Man Rajbhandari (Design Manager PPC)
Ms Nanda Sitaula (Typesetter PPC)
Ms Indira Pyakurel (Typesetter PPC)
Mr Mahendra Tandukar (freelance Designer)
Mr Gauttam Manandhar (freelance Illustrator)
Mr Abindra Shrestha (freelance Illustrator)

3.1 Desktop publishing training

The participants were trained in the three main DTP programmes, Adobe PageMaker, Adobe PhotoShop and Adobe Illustrator, and also in scanning, colour theory, monitor calibration, font management and some aspects of memory management. Training materials were supplied for revision purposes.

Training was intensive and carried out against checklists of essential tasks to be covered. Evaluation could not be adequately carried out in the time available and feedback from the DTP team after a few weeks would be useful to establish the effectiveness of this training.

Deviation from TOR: training was given in Adobe Illustrator instead of MacroMedia Freehand. See Recommendation 6.2.3.

3.2 Design and illustration training

The design training seminar took place in the new offices of the design department of the PPC in Sano Thimi in the period 22 November - 10 December 1999 with the aim of developing further and refining the textbook and educational materials design at the PPC. The seminar concentrated on the following themes:

- Hands-on training based on on-going production
- Basic concepts of graphic design
- Use of illustrations
- Critical review of current and earlier production.

3.2.1 Hands-on training

Hands-on training was based on the five textbooks currently being worked on at PPC: four textbooks for out-of-school children (Nepali language, English, Social Studies, Environment and Science) and one literacy primer for women. The hands-on training continued throughout the three-week seminar.

3.2.2 Basic concepts of graphic design

Only Mr Navindra Rajbhandari and Ms Nada Sitaula had participated in the initial basic design seminar in November-December 1998. During the first week, a number of short workshops on basic concepts for graphic design and illustration were held for the four new participants with a view to providing background and knowledge about how to produce communicative, functional and attractive materials.

The following themes were dealt with: typographic communication, typefaces (Nepali and Latin) and typesizes, letter-space, word-space, line-space and kerning, headings, arrangement of text (justified and unjustified), cover design, positioning of illustrations, awareness of page composition.

3.2.3 Illustration training

Two freelance illustrators, Mr Gautam Manandhar and Mr Abindra Shrestha attended the DTP and Design seminar. Both are frequently used by the PPC and are highly skilled. Their illustration technique is primarily line drawing which is very appropriate for primary grades. The training concentrated on the following themes: the purpose of textbook illustration, appropriate illustration techniques, consistency of style, awareness of scale, positioning of illustrations, integration of text and illustration and page composition.

During the second week of the seminar two fully integrated supplementary readers for first grade in A5 and A6 format were produced as trial material. The supplementary readers were based on booklets produced in the writers' seminar which took place at the same time.

3.2.4 Critical review of current and earlier production

Careful analysis and critical review of current production are very good methods to develop further and refine textbook and educational materials design.

The critical review of the current production at the PPC was conducted on an on-going basis involving all participants. The review included new supplementary textbooks for grade 3 in Maths, Nepali and Newari language (produced during 1999) as well as a selection of primary textbooks, teacher guidelines and supplementary materials.

3.3 Book design awareness

A two-day seminar for the liaison editors of the Sections on book design awareness and appreciation was conducted during weeks two and three. The seminar gave an introduction to basic design concepts and stressed the importance of design and illustration in the production of communicative educational materials. The seminar included a critical review of two current primary textbooks, Maths for grade 1 and English for grade 5.

During the final week a revision of the House Style manual drafted in 1998 was produced by participants in the intermediate editorial seminar and Mr Joe Josephs in collaboration with Mr Navindra Rajbhandari (Design Manager PPC). A copy of the House Style is annexed to Mr Joe Josephs' report.

4. OBSERVATIONS AND CONCLUSIONS

4.1. Working conditions at the PPC

The room for design and DTP is spacious and well laid out, but the lighting and ventilation are unsuited to a DTP studio.

4.2. PPC design staff

The Design Unit at PPC presently employs a staff of three: Mr Navindra Rajbhandari (Design Manager) and two DTP assistants, Ms Nanda Sitaula and Ms Indira Pyakurel. All illustration work at the PPC is done by freelance designers, employed as needed. The PPC sometimes employs freelance DTP operators when the workload is high.

It is obvious that the PPC is seriously understaffed especially for DTP and computer operation, but also for design. In view of the workload planned, the PPC has been supplied with new high quality workstations for six persons. From January 2000, the Unit will have a permanent staff of only two because Ms Indira Pyakurel will attend a four month scholarship (not design related) in Denmark. The resulting situation is highly unsatisfactory and must be addressed. To rely on freelance assistance for design and DTP is not advisable.

The employment of freelance illustrators has so far functioned well. However, with increasing workload and considering the importance of illustrations in materials for primary grades, problems could arise if PPC does not have some form of more permanent long-term agreement with illustrators.

4.3. PPC: materials production

The educational materials produced during 1999 are generally of a very good standard and show a clear improvement over previous production. The new DTP equipment means that work can be accomplished at greater speed and the scanner allows the illustrations to be pasted electronically. It is now possible to supply CRC to printers on disc.

It is, however, a major problem for the PPC that only about a third of manuscripts are presented in word-processed and properly edited form. Most manuscripts are delivered on paper and consist of photocopied extracts from former publications mixed with hand-written amendments and additions. Manuscripts are often not complete but are delivered to the PPC in parts as the writing is completed. Much valuable time at the PPC is therefore spent word processing manuscripts and then waiting for them to be proof-read and (re) edited.

All primary sections have been allocated new Personal Computers so that they can word process manuscripts before they are presented to the PPC. Some however have not yet been installed, while others are not used for this purpose.

4.4. DTP skill levels

The regular staff were able to perform basic DTP operations, but a lack of overall understanding caused them to run into problems and work inefficiently. All the staff were well motivated and committed. However, the trainees (including freelancers) had little time to consolidate their new knowledge and some instances of misunderstanding were noted.

5. RECOMMENDATIONS

Physical

See Appendix II for details of costs and suppliers.

1. Unstable desks: The desks opposite the windows are particularly unstable, and damage is already being caused to active disks, hard drives and CDs whenever the desk is knocked. They should be cross-braced.
2. Lighting: The existing lighting causes problems of glare, reflections and variability of colour display. The sunlight is brighter than the monitors and makes it very difficult to see work on those screens which are backlit by the sun. On the opposite side of the room, it is difficult to see work on the screen because of the reflections. Ambient light should be constant to facilitate correct colour display on the monitors. "Blackout" curtains, or a screen between the computers and windows would reduce glare and help to create a more constant level of ambient light. Hoods over the monitors would also help.
3. The studio environment: A DTP studio atmosphere should be more carefully controlled. Atmospheric pollution coats everything in a layer of gummy dust. Although surfaces are efficiently cleaned every day, the dust is sure to penetrate the computers and will cause problems sooner or later. Also, the continual comings and goings of non-DTP staff contributes to the circulation of dust. Weekly vacuum cleaning of computer ventilation grills and keyboards should be carried out, plus occasional internal computer vacuum cleaning under the supervision of the supplier.

A hand-held vacuum cleaner is needed for keyboards, computer ventilation grilles, etc. It is recommended that a self-closing mechanism should be fitted to doors to keep them shut. It is also recommended that regular access should be restricted to DTP staff only; meetings with other staff could be arranged in adjoining rooms.

The existing airconditioner circulates air within the room, but does not draw in fresh air, so staff tend to open windows to let in air (and dust) when there are many persons in the room using up the oxygen. A split-type of air conditioner would supply oxygen and clean air, power supply permitting.

Software

The classic trio of DTP programmes consists of a page layout programme, an image processing programme and a drawing programme.

Page layout: PPC has Adobe PageMaker, which is fine and is adequate for the anticipated work of the PPC, and it is widely used in Nepal. QuarkXPress may be added at some future date if it becomes standard at JEMC or other printers or repro bureaux. QuarkXPress is a better program and may supersede PageMaker eventually. (Note: more than one layout programme may be installed on a computer at a time; they are not mutually exclusive). The PPC expressed an

interest in the recently released page layout program, "Adobe InDesign". It is unnecessarily sophisticated for textbook production and so far it is untried or accepted by the industry.

Image processing: the PPC has Adobe Photoshop, which is fine.

Drawing: At present, the PPC has Macromedia Freehand, which is a heavyweight program with many functions surplus to PPC requirements. When used with other applications open, it may be contributing to the crashes which the PPC have been experiencing. Adobe Illustrator is the ideal partner to the previous two Adobe programmes. It comes from the same family so it uses the same terminology and procedures. The PPC staff has learnt the basics during this consultancy.

It is recommended that Adobe Illustrator should be acquired for the PPC, and the present copy, which was installed on the PPC computers for purely demonstration purposes, should be removed.

Optical Character Recognition (OCR): This translates scanned typescripts into word-processing documents. There are sure to be occasions when this is useful, even when the Publishing Management System is fully operational. The PPC have been given "TextBridge", which is incompatible with their Agfa scanner. "OmniPage" should be substituted. A Devanagari OCR is apparently not yet available.

6. At present, the PPC is living dangerously without data protection. It is essential that antivirus protection and utilities should be obtained soon, e.g. Norton Antivirus, Norton Utilities as well as Extensis Suitcase font management which will greatly aid productivity.

7. Other useful programmes include "Comic Strip Factory". The PPC would like this inexpensive program for assembling comic strips or illustrations from pre-drawn characters (by PPC illustrators) by non-illustrator staff.

Hardware

8. See Appendix II for details of costs and suppliers.

9. A CD Reader-Writer with "Toast" software is ideal for rapid back-ups. At present, the PPC uses "Zip" discs which are time-consuming and so complete back-ups may be neglected under pressure. Zip discs can continue to be used for transfer of data to Printing and Repro houses, (who appear to be scrupulous about returning them). Eventually CDs can be used when local printers and repro houses use CD-Reader-Writers.

10. The existing mouse mats slip around on the smooth desktops and hamper work. Six small cutting mats approximately 30mm X 20mm would increase efficiency considerably.

11. Hoods for monitors will cut down reflections and improve visibility and colour perception.

12. Linen testers (printer's magnifying glasses) are necessary for gauging detail in transparencies, and checking register, dot patterns, etc.

13. A hand-held, battery-operated vacuum cleaner of "turbo" strength to remove dust from computer ventilation grilles, key boards etc. is advisable for weekly first-line maintenance.

14. This DTP consultant endorses previous recommendations for the purchase of colour proof-checking equipment to ensure that colour proofs are checked under the same lighting conditions as those used by colour separation companies who produce the final printing film.

Publications

15. The following publications are recommended for the PCC:

- A "Pantone Specifier" containing tear-off colour samples, and a complete "Pantone Colour Survival" zip-up pack containing the swatches "Process Colour Formula Guide", "Process Colour Imaging Guide" and "Spot Colour Formula Guide".
- Visual Quickstart Guide, *Illustrator 7 Bible for the Macintosh* by Ted Alspach, published by Peachpit Press.
- *The Little Mac Book* (Robin Williams, published by Peachpit Press) is extremely useful for answering many common questions.
- Set of charts demonstrating two colour effects using combinations of the four process colours, plus proof corrections.
- *The Print Production Handbook*, by David Bann, published by Little, Brown.
- *The Blueprint Handbook of Print and Production*, by Barnard, Peacock, published by Blueprint.
- *Colour Proof Correction*, by Bann and Gargan, published by Phaidon.

Further training needed

16. The PPC trainees may need reinforcement of this seminar, which was carried out at speed without adequate evaluation. It is recommended that feedback from the DTP team is obtained after a few weeks against the checklists supplied to establish the need, if any, for reinforcement of this seminar.

17. To complete the DTP competence of the PPC for the preparation of publications in colour, training will be needed in the preparation of publications for printing, (proofing, pre-flight, hand-off, trapping, linked graphics, and possibly colour separations). Time required is approximately 2 weeks.

18. Tuition on QuarkXPress may be needed if this program comes into use.

Staff development

19. It is recommended that the permanent design unit staff at the PPC be expanded. For the PPC to function efficiently and be able to cope with the production planned for the year 2000 the staff should comprise a minimum of six persons: a design manager, two designers and three DTP operators.

20. It is recommended that the BPEP Co-ordinator explores the possibility of employing at least one illustrator for the PPC on a permanent basis.

21. It is recommended that the Design Manager, Mr Navindra Rajbhandari, receive a one-month placement working in a major educational publishing house in Singapore or UK.

Publication development

22. It is recommended that all manuscripts be word processed before they are presented to the PPC. Therefore, all the PCs provided for the individual sections should be installed and used (so that manuscripts can be word processed before they are presented to PPC).

It is recommend that the new typeface families in Latin script, Frutiger, Gill Sans, Futura (some of which have been installed on trial) be purchased for the PPC. Also, more Nepali fonts should be purchased for greater variety of effects (for headings, book covers, title pages and posters).

TERMS OF REFERENCE

1. Prepare teaching materials for the seminar entitled "Design and DTP" as follows: Book design specialist as in 2 below; DTP specialist as in 3 below.
2. For the PPC designers, freelance illustrators, production manager (part); Implementing the design of a book. This should consist of (I) Advanced book design and illustration techniques in practice, (ii) Collaboration with editors and production manager, (iii) Cost parameters. (During weeks 1 and 2. In week 2, teaching should be in liaison with the DTP specialist.)

For the Sections' liaison editors: Book design awareness and appreciation, an introduction to design concepts. (This will be for a few days in the third week and in liaison with the editorial specialist, Joe Josephs.)

For the remainder of the third week, work with the Design Manager.

Teach the seminar from Monday 22 November – Friday 10 December 1999.

3. For the PPC designers and freelance illustrators: Advanced DTP programs to include Pagemaker, Photoshop and Freehand programs. (During week 1, teaching should be in liaison with the book design specialist.)

Teach the seminar from Monday 29 November – Friday 10 December 1999.

4. Write a brief joint design-DTP report on activities with recommendations on future training needed.

ANNEX II

People trained:

Navindra Rajbhandari (Design Manager, PPC)
Mrs Nanda Maya Sitaula (Typesetter/Computer Operator)
Mrs Indira Pyarukel (Typesetter/Computer Operator)
Mahendra Tandukar (Freelance Designer)
Gautam Manandhar (Freelance Illustrator)
Mr Abindra Shrestha (Freelance illustrator)

People met in addition to trainees:

Erik Winter-Schmidt (CTA)
Ms Vibeke Jensen (Education Advisor)
Ratna Man Shakya (Production Manager)

Recommended purchases for the Primary Publishing Cell

Software

(Note: when buying new programmes for networked computers, it may be more economical to buy a “network licence” or “bundle” than buying separate copies for each workstation.)

- QuarkXPress 4.0.4 is obtainable from the UK MacWarehouse (tel: 00 44 800 181 332) @ £779 excluding VAT, plus postage and packing:
- Adobe Illustrator v.8.0 for Mac @ £239 excluding VAT or £1.100 for a 5-pack bundle (for five networked computers). Obtainable from the UK MacWarehouse (tel: 00 44 800 181 332) or from the Adobe Shop, Edinburgh (tel: 00 44 131 458 6842).
- Optical Character Recognition (OCR) “OmniPage Pro 8” obtainable from the UK MacWarehouse (tel: 00 44 800 181 332) @ £348 excluding VAT, plus postage and packing.
- Antivirus protection, utilities and font management: Norton System Tools @ £99 excluding VAT, and Norton Utilities 5.0 bundled with Extensis Suitcase @ £89 excluding VAT plus postage and packing.
- “Comic Strip Factory” suitable for Macintosh Power PCs, OS 8.0 and over, obtainable from the UK “Translatum”, Derek O'Brien, Saithaelwyd Ucha, Carmel, Holywell, Clwyd CH8 8NU (tel: 00 44 1352 710 276, fax: 00 44 1352 714 769).
- Three new Latin-script fonts can be purchased from Monotype Typography Ltd, Unit 2, Perrywood Business Park, Surrey RH1 5DZ (tel: 00 44 1737 765 959). Cost is approximately £20 per font excluding VAT, plus postage and packing, per batch.

Specifications:

Frutiger: Creative Alliance Catalogue no A-413073

Frutiger 45 Light 4943
 Frutiger 46 Light Ital 4944
 Frutiger 55 Roman 4945
 Frutiger 56 Italic 4946
 Frutiger 65 Bold 4947
 Frutiger 66 Bold Italic 4948
 Frutiger 75 Black 4949
 Frutiger 76 Black Italic 4950

Futura 1 Neufville Creative Alliance Catalogue no A-413046

Futura Light 0375
 Futura Light Oblique 4831
 Futura Book 4832
 Futura Book Oblique 4833

Futura Bold 1171
Futura Bold Oblique 4834

Gill Sans

Gill Sans Light 3870
Gill Sans Light Oblique 3871
Gill Sans 3872
Gill Sans Italic 3873
Gill Sans Bold 3874
Gill Sans Bold Italic 3875

Hardware

- A CD Reader-Writer approximately £190, excluding VAT, with “Toast 4.0” software @ £49.99 excluding VAT. NB: Non-USB connectors must be ordered.
- Six small cutting mats approximately 30mm x 20mm are obtainable from most graphics suppliers.
- Four Hoods for 21” monitors, obtainable from the UK, MacWarehouse (tel: 00 44 800 181 332). Part no AC 27919 @ £4.99 + Vat each.
- Two linen testers LT5 @ £21.50 each, from the UK, Arnold Cook Graphic Arts, Riverside, Stanstead Abbots, Herts SG12 8AP (tel: 00 44 1920 870 991).
- Colour proof checking equipment (to ensure that colour proofs are checked under the same lighting conditions as those used by colour separation companies who produce the final printing film). Supplied from the UK by Veri-Vide or Arnold Cook Graphic Arts, Riverside, Stanstead Abbots, Herts SG12 8AP (tel: 00 44 1920 870 991).

Publications

A “Pantone Specifier” containing tear-off colour samples @ £162 approximately, and a complete “Pantone Colour Survival Guide” zip-up pack containing the swatches: “Process Colour Formula Guide”, “Process Colour Imaging Guide” and “Spot Colour Formula Guide” @ £157 approximately. Supplied from the UK by Arnold Cook Graphic Arts, Riverside, Stanstead Abbots, Herts SG12 8AP (tel: 00 44 1920 870 991).

Visual Quickstart Guide *Illustrator 7 Bible for the Macintosh* by Ted Alspach, published by Peachpit Press, approximately £17.

The Little Mac Book by Robin Williams, Peachpit Press approximately £14.

Set of charts demonstrating two-colour effects using 2-colour combinations of the four process colours, plus proof corrections chart and duotone charts, obtainable from the UK, Battley

Brothers, 37 Old Town, Clapham, London SW4 0JN (tel: 00 44 171 622 3401, fax: 00 44 171 498 1497).

The Print Production Handbook by David Bann, published by Little, Brown.

The BluePrint Handbook of Print and Production by Barnard, Peacock, published by Blueprint.

Colour Proof Correction by Bann and Gargan, published by Phaidon.