

Martha Scotford



Teaching typography in a cross-cultural setting poses particular conceptual and visual problems. Using a recipe as the content for a typographic assignment while teaching in India, the author explores typographic approaches that include functional, expressive and integrated perspectives in English, Hindi, Kannada, Marathi and to a lesser extent Malayalam and Tamil and various combinations of languages. This experience is documented through illustrations and commentary on the student solutions.

The students were amused: the American teacher was asking them to play with their favorite lunch food. This brought back all sorts of domestic and school memories, and discussions of family and regional variations. When translated from English, the recipe text was debated; how to render the word for 'leftover' that did not also imply 'stale'? The sensory experience of the dish was described for the teacher who had never eaten it: white, cool, smooth, mildly spicy, soothing in the heat of the day. The Indian lunch box, the multi-tiered and compartmented tiffin box, was remembered with fondness. The special shape of the vessel for making curd (or yogurt) at home was described. And by an amazing coincidence, on the day the project ended at the first school, we had Dahi Bhaat for lunch in the mess hall. Later, at another school, a student brought enough for the whole class to share on the last day. This was exactly what I had hoped for: a way for me into a new culture through language and food, a way for Indian students into experimental typography starting from some familiar ground.

Graduate and undergraduate students at four Indian universities and design schools worked on a typographic exercise using English and the Roman alphabet, Hindi and the Devanagari alphabet, and several other Indian languages and alphabets. The exercise was intended to explore some qualities of basic typographic composition, some aspects of expressive typography, the design assumptions and necessities of English/Roman compared to Hindi/Devanagari and others, and to prompt discussion of cultural and linguistic traditions in relation to typography.

The students were a mixed lot, coming from all regions of India: second year graphic design students at the National Institute of Design, Ahmedabad (the premier public design school in India) with some typography experience; first and second year graphic design students at the Shristi School of Art, Design and Technology, Bangalore (a new private design school) with some type experience; graduate students in visual communication at the Industrial Design Center, Indian Institute of Technology-Bombay (the only graduate design program in India) with moderate type experience; and first

tiffin treat

dahi bhaat

2 cups boiled rice (leftover)

1 cup curd

1 tbs. oil

1/8 tsp. mustard seeds

1 green chili (optional)

1/4 tsp. chopped ginger

1 sprig curry leaves

salt to taste

the night before:

cook and cool rice, if there is none leftover

whip the curd

chop the chili

chop the ginger very fine

wash the curry leaves

heat the oil and splutter the mustard seeds in it

add the chili, ginger and curry leaves and fry for a minute

pour over the whipped curd

add the seasoning and rice

stir well

cover and chill

in the morning:

pack in the lunch box

note: a very cooling dish for summer

[added later: serves 4-6, preparation time 30 minutes]

year graphic design students at the Indian Institute of Technology-Guwahati (the newest IIT campus, in the far east state of Assam) with little type experience. The core project was the same for each group, however adaptations were made based on student experience and time available (from two to three-and-a-half weeks). Technology was somewhat limited by United States standards; the students began with sketching, some with cut-and-paste compositions of photocopied text, and then moved onto computers using programs they knew (Corel Draw, Illustrator, and PageMaker) with limited fonts in Hindi and other languages.

The exercise used the short text of a simple and common Indian recipe for a rice and yogurt dish, called *Dahi Bhaat*, often served for lunch or snack. The text comprised a title, subtitle, list and quantities of ingredients, the procedural steps, and a serving comment (later two groups added serving size and preparation time). The structure of the exercise was to employ the admittedly artificial extremes of 'functional' and 'expressive' as beginning points for experimentation; then to arrive at an 'integrated' midpoint, with the possibility it would be better than either extreme.

WORD LIST :

To begin work a shared understanding of the terms was needed. The students brainstormed lists of words they associated with each of the extremes pertaining to typography. The lists remained on the blackboards for the duration of the project, to inspire and keep them on track. We discussed the nature and purpose of a recipe, who would be using it, how it would be used (shopping list and cooking directions), when certain elements would be important (for example, the rice must already be cooked before starting). We analyzed the text: what were the parts (titles, ingredients list, steps, note) and how did each operate in the whole? What kinds of words and symbols were used? Part of the discussion was also the memories and associations elicited by the text; mothers preparing food, how certain spices react, other tiffin treats, and eating customs in different areas of India.

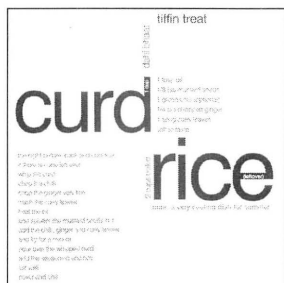
	<i>expressive</i>
	Simple
	Radical
	Erratic
	Funny
	Personal
<i>functional</i>	Emotional
Mechanical	Playful
Business-like	Aesthetic
Unemotional	Subjective
Basic	Unconventional
Readable	Daring
Practical	Exciting
Clear	Rule-breaker
Comprehensive	Attractive
Ordered	Effective
Useable	Quick
Purposeful	Poetic
Structured	Eye-catching
Efficient	Contemporary
Effective	Special
Objective	Different
Concise	Extraordinary
Serious	Disturbing
Linear	Chaotic
Methodical	Spontaneous
Hierarchy	Beautiful
Balanced	Controversial
Comfortable	Useable
Direct	Indirect
Instructive	Misleading
Logical	Practical
Calculated	Persuasive
Symmetrical	Individualistic
Neutral	Free
Transparent	Informal
User-friendly	Non-functional
Communicative	Incomprehensible
Approachable	Biased
Universal	Deflected
Simple	Revolutionary
Precise	Artistic
Formal	Unusual
Static	Customized
Literal	Abstract
Framed	Extreme
Monotonous	Meaningful
Contextual	Experimental
Straightforward	Provocative
Sequential	Evocative
Unbiased	Connotation
Directional	Appropriate
Obvious	Metaphorical
Procedural	Short-lived
Persuasive	Human
Boring	Opaque
Denotation	Random
Conventional	Impractical
Traditional	Complex
Safe	Trendy
Attractive	Uncomfortable
Expected	Dynamic
Workable	Moving
Appropriate	Sensation

Working first in English, the students tackled the 'easy' Functional (closest to what they had already studied in typography), then moved to the Expressive, ending with Integrated compositions. Briefly, Functional was defined as easily readable, organized for understanding and following process. For Expressive the emphasis was on interpretation (of process, words, actions, associations, emotions, context) with readability not important. Integrated combined the best features of both, a useable text with increased visual, cultural, emotional interest and impact. Once they had cycled through the whole process, they could move through it again using Hindi or another Indian language with which they were familiar. For practical and pedagogical reasons, typeface choices were limited to a few sans serif faces. The students were given 'neutral' text in all lowercase, no punctuation; they were not allowed to add or subtract words, but could punctuate however they wished.

The educational levels, experiences and mindsets of each group made their responses different; different groups found certain parts easier than others. The students studying at the two IITs, India's technical universities known for their engineering and computer science programs, found working in the Expressive mode difficult, whereas the students in the art and design schools did not. Accompanying lectures on the history of western avant-garde typography of the early twentieth century suggested possibilities and helped some students understand better the freedom available for their work.

From among the many strong examples, these are chosen emphasizing design quality and variety of concepts with priority given to those concepts most directly connected with the specific content and context; some formal ideas might well pertain to other texts (and here represent part of the student's learning process).

ENGLISH FUNCTIONAL:



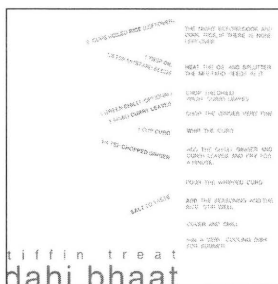
1: | Seema Seth, Shruti



2: | Ashish Sharma, IIT-G

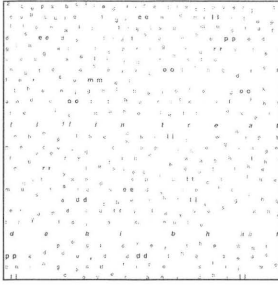


3: | Surbhi Guleria, NID



4: | Prachi Kamdar, NID

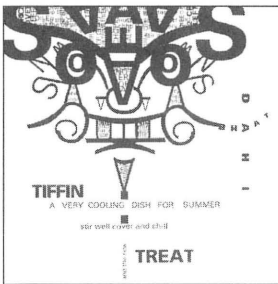
The essential parts of the message are clearly separated by space and alignments; other elements are treated for emphasis. The first emphasizes the main ingredients which become the English title (FIGURE 1). The second uses bold for ingredient names and the action verbs; the detail about cooking the rice first is separated (FIGURE 2). The third uses bold for quantities and actions (FIGURE 3). The fourth uses bold for ingredients and some actions; ingredients are distinguished by angled baselines; added space between the actions defines the steps (FIGURE 4).



5: | Kruti Saraiya, Shristi



9: | Shruti Shrivastava, IIT-G



11: | Aviral Saxena, NID

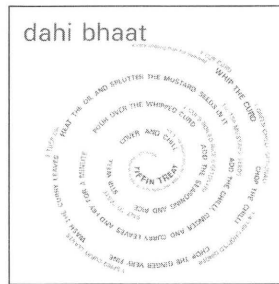
ENGLISH INTEGRATED:



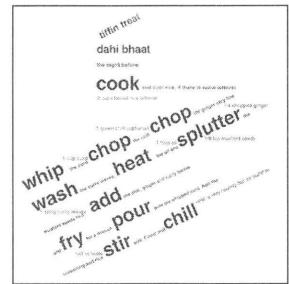
12: | Arvind Prabhakar, Shristi



13: | Geetanjali Shrivastava, NID



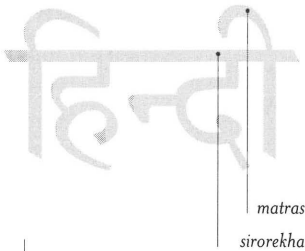
14: | Charmaine D'Souza, Shristi



15: | Mona Gonsai, NID

Integrated examples combine the best ideas for communication and expression. In the twelfth the sections of the tiffin box organize the steps, the ingredients at top allowing the evocative name and odor to escape (FIGURE 12). The size of the numbers in thirteen show quantity in reverse and suggest the spluttering mustard seeds (FIGURE 13). The fourteenth attaches the ingredient quantities to the action when needed for the whole swirling mixture (FIGURE 14). In fifteen the actions are emphasized and the quantities tucked in (FIGURE 15).

Following the English compositions, the students chose another Indian language. In most cases this was Hindi (the other official Indian national language with English), but some knew and chose Marathi (spoken in Bombay and the surrounding Maharashtra state), Kannada (spoken in Bangalore and the state of Karnataka), Tamil (spoken in Tamil Nadu) and Malayalam (spoken in Kerala). Marathi uses the same (Devanagari) alphabet as Hindi; the others employ their own alphabets derived from many writing traditions. This part of the project fulfilled one of my goals to learn more about the myriad Indian languages and alphabets in a typographic context that allowed discussion and exploration. It transpired that the students had done little typographic work outside of English, thus this part of the exercise was a beginning for them too.

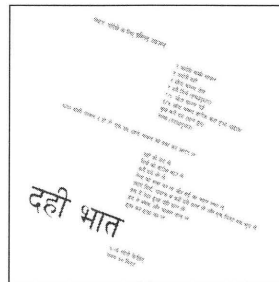


A few basic characteristics of Hindi: the letters are consonants connected to make words by the top horizontal bar (*sirekha*) above which the *matras* indicate the vowel sounds, as well as some *matras* attached to character bases. There is only one case. A sentence ends with a vertical bar, and Hindi has its own numbers. The letterforms, compared with English, tend to be slightly more complex, more curved and closer to their humanistic pen-form roots. The close viewer/reader will notice a repetition of short words at the end of sentences — these are the Hindi verbs. The words 'tiffin treat' have become a single five-letter word 'nashta.'

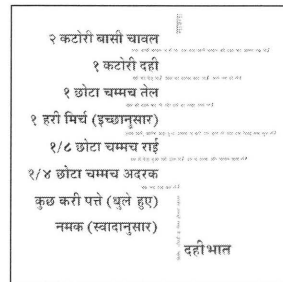
HINDI FUNCTIONAL

In sixteen the comments and notes provide spatial divisions for the sections; the title is large at the bottom (FIGURE 16). The seventeenth contrasts the ingredients to actions by size, *nashta* and the note are vertical (FIGURE 17). In eighteen the title words define spatial areas for the two text sections; the *sirekha* provides a platform for *nashta* and the note (FIGURE 18). Words (title, subtitle and note) on diagonal in nineteen divide the space and suggest alignment for the text groupings; the numbers for ingredient quantities are enlarged (FIGURE 19). The pinwheel-like movement has a cultural significance; the swastika is an old and positive symbol in India.

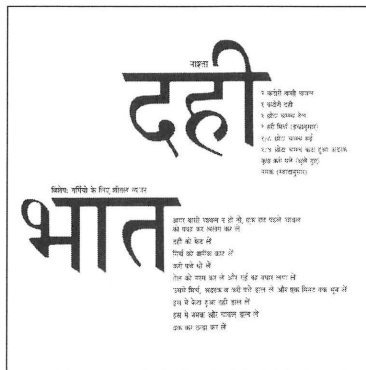
HINDI FUNCTIONAL:



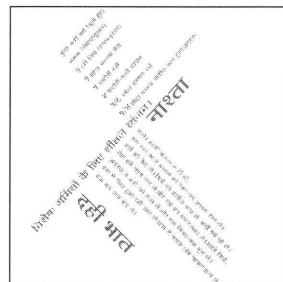
16: | Gaurav Mathur, IIT-B



17: | Dipannita Dutt, NID



18: | Smriti Mehra, Shristi



19: | Geetika Jaspal, NID

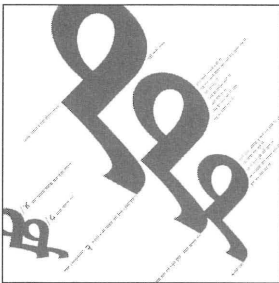
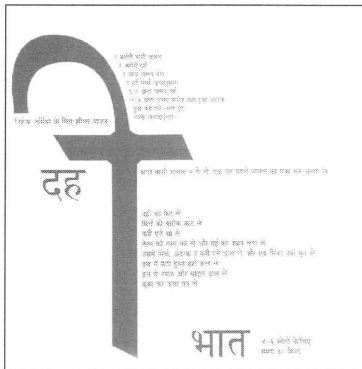
HINDI INTEGRATED :

अगर बासी चावल, बड़े बड़े कचरे। न हों तो, एक रात पहले
 चावल को पका कर अलग रख लें। दही, कड़वा लो को फेंट
 लें। मिर्च को निकालकर, को बारीक काट लें। करी पतले धो
 लें। तेल में कड़ाक सब्जियों को गरम कर लें और राई
 का बच्चा लगा लें। उसमें मिर्च, अदरक
 ब करी पतले धो करी पतले धो डाल लें और एक मिनट तक
 भुन लें। इस में फेंटा हुआ दही डाल लें। इस में नमक
 और चावल डाल लें। ढक कर ठंडा कर लें।
 विशेष: गर्मियों के लिए शीतल व्यंजन। दही भात



21: | Seema Seth, Shristi

24: | Gauri Bajaj, NID



23: | Rajorshi Ghosh, NID

25: | Gaurav Mathur, IIT-B

At Shristi in Bangalore, with students working in Hindi and Kannada, there was the opportunity to compare both languages with English/Roman in terms of alphabet forms, fonts, grammar, punctuation and general usage — all affecting typographic design. Both Hindi and Kannada have only one case and no italic. Both use phonetic alphabets, reading left to right with sentence structure beginning with nouns and ending with verbs. Kannada uses punctuation similar to English while Hindi uses the vertical bar (*purnaviram*) for a full stop. Hindi, with straight and curved, simple and complex forms, aligns along the horizontal *sirorekha* with *matras* above the line and below the letters like subscripts. Kannada, with mostly curved forms and a 'soft' slightly weighted baseline for alignment, has *matras* above and below letters. In Hindi certain sounds are formed with half characters joined horizontally; in Kannada subscript letters for combinations can be joined vertically. Because of so much information along the *sirorekha* and letter bases, Hindi is unreadable if cropped top or bottom. In contrast, Kannada readability can survive some top and bottom cropping. Hindi characters have a strong axis on the right, often a vertical stroke, but can create a strong left aligned edge; Kannada's soft forms create no strong edges and alignments are optical and easiest seen in mass.

For expressive purposes, English affords much greater distortion and flexibility while maintaining readability. In Hindi the necessary connection by *sirorekha* can be broken only slightly before words fall apart becoming meaningless; letterspacing is very limited as sound combinations are fragile. Nor can letterspacing be reduced by much before characters and *matras* pile up on one another. For the same reason, vertical stacking of Hindi characters is close to impossible. For Kannada, wide letterspacing is possible; *matras* can be distorted as long as they remain under the correct part of the character. Due to size differences among the characters most words cannot be stacked vertically. Given these conditions the students discovered what was possible, useful and expressive. Because of one case, larger characters or bolder characters could emphasize or define for both languages. The strong horizontal of Hindi allows close linespacing; Kannada needs greater separation between lines for definition.

ENGLISH;

HINDI;

KANNADA;

UPPERCASE,
lowercase

one case

one case

italic

no italic

no italic

--- read left to right ---

.! ? (punctuation)

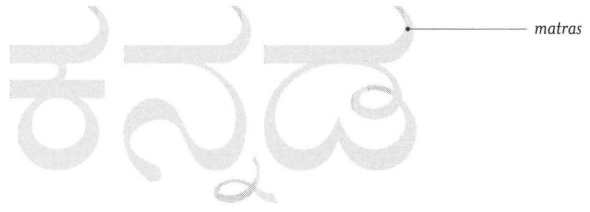
| (purnaviram)

.! ? (punctuation)

English

हिन्दी

ಕನ್ನಡ



KANNADA FUNCTIONAL

In Kannada '*dahi bhaat*' becomes '*mosaranna*' in five-letters and '*tiffin*' becomes three-letter '*thindi*'. In twenty-six, the ingredients are listed under the title and note while the steps are in larger type with the sentence-ending verbs much larger and looking bolder (FIGURE 26). Here you can see the variable visual density of the characters and the relative size of the bottom *matras*. '*Thindi*' (*tiffin*) is stacked in twenty-seven enclosing the title; ingredients are listed at top and process below, the note at the base (FIGURE 27). '*Thindi*' is again used as the focal point in twenty-eight; title, note, ingredients and steps rotate outward (FIGURE 28).

KANNADA EXPRESSIVE

By a student not familiar with the language, the essence of mixture, all the words and foods, is shown in twenty-nine, the title enclosed in '*thindi*' (FIGURE 29). The title in thirty is set in a more informal font; along the top the ingredients flow; mixing around the letters are the recipe steps; '*thindi*' can be seen in the medium-sized letters (FIGURE 30). Thirty-one emphasizes the forms of the Kannada numbers, even in fractions, the ingredients follow their forms; the steps are listed ending with the title (FIGURE 31).

MARATHI FUNCTIONAL

Marathi uses the same Devanagari alphabet as Hindi. The title in thirty-two with slightly overlapping words creates the column for the grouped texts; the curved note draws in the reader (FIGURE 32).

MARATHI EXPRESSIVE

Some of the title characters create a vessel for the food, shown with its clumps and spices in thirty-three (FIGURE 33). Another vessel created by one letterform pours the prepared food in thirty-four (FIGURE 34).

MARATHI INTEGRATED

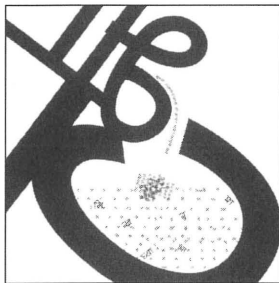
The enlarged characters of 'bhaat' in thirty-five provide the spaces and alignments for the texts; ingredients separated from rice note, separated from procedures, from cooling note and from servings and time (FIGURE 35).



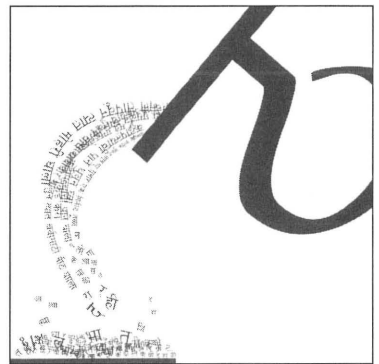
32: | Radhika Tipnis, IIT-B

MARATHI FUNCTIONAL;

MARATHI EXPRESSIVE;

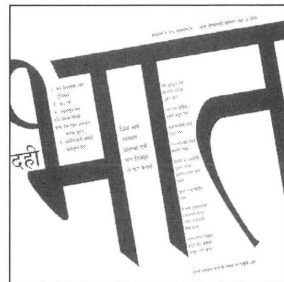


33: | Radhika Tipnis, IIT-B



34: | Shweta Telang, IIT-B

MARATHI INTEGRATED;



35: | Shweta Telang, IIT-B

In contrast to Devanagari from pen forms, Malayalam and Tamil alphabets are derived from writings on palm leaves with a pointed tool; the curling motions are combined with few straight lines in Malayalam, more complex curves in Tamil with more straight strokes. These too have single cases and must rely on size and weight for visual emphasis. More spacing flexibility is possible as the characters are separated. Malayalam has some accents, while Tamil has elaborate ascenders and descenders.

MALAYALAM FUNCTIONAL:

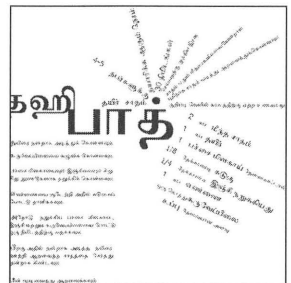
With title in the corner in thirty-six the notes encircle the ingredients and the process steps down (FIGURE 36).



36: | Rajith Kumar, IIT-B

TAMIL INTEGRATED:

In thirty-seven, the large title provides the center point for all notes and the ingredient list; process steps are listed to left (FIGURE 37).



37: | Savavara Raja, IIT-B

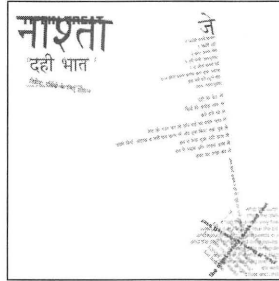
Some students explored the challenge of a bilingual composition. When attempting to balance weight and color between languages they discovered limitations in available fonts; type sizes are best matched optically between English and Indian faces as point sizes must include the *matras* making the x-heights different.

ENGLISH/KANNADA FUNCTIONAL

Both titles in thirty-eight are rotated and the two recipes lean toward each other in visual balance (FIGURE 38).



38: | Krupa Thimmaiah, Shristi



39: | Arvind Prabhakar, Shristi



40: | Geetanjali Srivastava, NID

ENGLISH/HINDI EXPRESSIVE

Politics (and humor) enter in thirty-nine where the student uses Hindi and its *sirorekha* to obliterate the colonial English and includes a banner of Hindi topped by 'jai' — short for the rallying cry of 'Jai Hind' or 'Glory to India' (FIGURE 39).

ENGLISH/HINDI INTEGRATED

Emphasizing the visual contrast of the letterforms by using a condensed English, forty alternates Hindi ingredients with English process along the left and the reverse along the right, with title to the edge (FIGURE 40). Hindi changes sizes and weight, the English changes only size.

In conclusion, with so many parts of the exercise new to the students, some progress was inevitable. Initially, some students found the exercise tedious, then got into the spirit. One of their usual teachers compared the whole exercise to cooking: not enjoyable unless your hands are smeared with ingredients. Here their hands were full of type, rules and text, and they began to enjoy. Some specific aspects they valued involved the structure of the exercise: using the extremes to create understandable boundaries that were subsequently blurred, the sanctioned rule breaking, and finally, knowing experimentation was acceptable and encouraged. The simplicity of the text led some to think the exercise limited but later were surprised at the level of creativity it generated. Working in two and three languages produced several rewards for students, in addition to pure novelty. Translating between the languages showed differences in sentence structure and hierarchy. They were confronted with aspects they took for granted in their primary language and now perceived differently in all languages. In the less familiar languages they began to look more closely at letterforms and at abstract qualities such as typographic color and texture. They found new visual ideas along with the new forms and structures and returned to the familiar with new eyes.

These students are preparing to take on the complexity of typographic design in a country with two official languages and more than twenty others, many dominant in their own regions. Through this short set of exercises they have discovered issues that will define their professional lives and problems that some may seek to address directly in their design. For example, currently the choice of typefaces for Indian languages is limited and within those available the variations in weight, structure and slant are not developed. Technology must address the fact that many Indian alphabets can have as many as fifty traditional characters. Hindi lost about ten characters when the British adapted it to the standard English keyboard. Those developing typefaces and typesetting programs have no standardized keyboards; manufacturers use their own variation on either key mapping or phonetic mapping onto English letters. There are important cultural and political ramifications to the creative and technical ability of designers to produce inventive and successful communication materials for the formidable range of voices among a billion people.

ACKNOWLEDGEMENTS

Thanks for their collaboration to:

At NID:

Colleagues: MC Patel and SM Shah

Students: Gauri Bajaj, Anish Biswas, Chiranjeet Borah, Dipannita Dutt, Mona Gonsai, Rajorshi Ghosh, Surbhi Guleria, Geetika Jaspal, Prachi Kamdar, Dev Kabir Malik, Kadambari Misra, Mohor Ray, Nidhi Sah, Aviral Saxena, Geetanjali Srivastava, Deepa V.

At Shristi:

Colleagues: Bela Rajagopalan

Students: Yolande Berlie, Vaibhav Bhawsar, Charmaine D'Souza, Shwetha Gopal, Chaitanya Krishnan, Ekta Manchanda, Gaurabh Mathure, Smriti Mehra, Shahana Mehta, Arvind Prabhakar, Arun Rajendran, Nitya Rao, Anindita Saha, Kruti Saraiya, Seema Seth, Krupa Thimmaiah.

At IIT-B:

Colleagues: Kirti Trivedi and Ravi Hazra

Students: Bhavna Bhargava, Harish Jaiswal, Rajith Kumar, Gaurav Mathur, Supreo Mukhopadhyay, Santhya Pujari, Anurag Rahul, Saravana Raja, Simone Schmidt, Shweta Telang, Radhika Tipnis, Shirish Totade.

At IIT-G:

Colleagues: S Nadkarni and A Das

Students: Kapil Arora, Ankur Jhavar, Ashish Krishna, Saveen Kumar, Sunil Parihar, Ankur Richhariya, Sidharth Saxena, Ashish Sharma, Shruti Shrivastava, Anand Yadav.

And thanks to all the friendly and helpful staff at the Fulbright offices in New Delhi and Mumbai.

AUTHOR NOTE

*Martha Scotford teaches graphic design and design history at North Carolina State University. She is author of *Cipe Pineles: a life of design* (Norton, 1999). Her visual translations instigated Lissitzky's and Mayakovsky's 'For the Voice,' comprising a volume of essays, a facsimile of the original Russian book, an English translation (The British Library, 2000). She was a Fulbright Lecturer in India for four months in 2001 during which these workshops took place.*