

MoMA, the Ulm and the development of design pedagogy in India

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On a scorching summer day in Delhi in 2011, I found myself in the lounge of the Gandhi Memorial, surrounded by copies of Marcel Lajos Breuer's iconic Bauhaus chair, the Cesca. Gandhi, who had both devised and followed an ascetic lifestyle to resist colonial pressure, was now, in historical burlesque, being served by transatlantic consumer goods, albeit of Indian imitation. During the process of decolonization, the concept of Indian modernism became embedded in an intricate and interpenetrating agent-network complex which was equally shared by the ideal, universal and placeless modernism of Western enlightenment and an amorphous multitude of vernacular practices. Through this ambivalent process, India eventually domesticated the norms of Western modernism to forge an internal institutional framework of modernism. To analyse the ambivalence of this transitional phase of Indian history, it is argued that it was mediated principally by the partnership of Western modernists and Indian cultural intellectuals, feebly coordinated government endeavours of industrial-design reformation coalescing into the National Institute of Design (NID) to produce a range of consumer products that represented a liberated domesticity. The NID was the first such institution in the emerging Third World, partly the result of US interest in modernizing and opening up the Indian market. The first large-scale exhibition in India by the International Program of New York's Museum of Modern Art (MoMA), "Design Today in America and Europe" manifested the Ford Foundation's interest in India as part of the US global cold-war strategy. However, the global "push factor" of MoMA and the Ford Foundation was supported by the many "micro pulls" of Indian trade interests as well as bureaucratic and cultural demands, their varying degrees of partnership and cooperation – together with the Ulm Design School of Germany (Hochschule für Gestaltung), whose faculty members were invited to NID in the early years – in the consecutive transference of global design technology only possible at a specific post-colonial moment.

Presenting a new transatlantic civilization

It was at the request of the National Small Industries Corporation (NSIC) of India that MoMA mounted in 1959 its first ever and largest design exhibition in South Asia.¹ For two years, from 1959 to 1961, the show travelled through nine major cities of India and drew more than a million visitors from all over the country.² Sponsored by the Ford Foundation and the United States Information Agency (USIA), with objects selected by Associate Curator Greta Daniel, the design team engaged by MoMA from the US architect and industrial designer George Nelson's office was the one that designed the epochal American National Exhibition held in Moscow, also in 1959. However, despite similar design and strategy, the two exhibitions were fundamentally dissimilar: one was produced by the USIA to undermine the Soviet state by depicting the US as a consumer paradise; the other, generated in response to a request by local businessmen under a bureaucratic umbrella, aimed to spur on the development of the national economy.³ The NSIC expected that the show would educate local artisans' and designers' tastes and skills, resulting in objects that, by virtue of having a modern appearance, would heighten the taste of the Indian consumer class, which in turn would lead to a concomitant expansion of the Indian home market for certain consumer goods.⁴ In effect, local entrepreneurs interpreted MoMA's aesthetic mission as having trade potential. Thus this 1959

1 The NSIC, an association of Indian businessmen, was a part of India's Ministry of Commerce: John Elderfield (ed.), *The Museum of Modern Art in Mid-Century at Home and Abroad* (New York: The Museum of Modern Art, 1994), 138.

2 The exhibition visited New Delhi, Madras, Bangalore, Cuttack, Hyderabad, Ahmedabad, Bombay, Calcutta and Kanpur.

3 Greg Castillo, "Domesticating the Cold War: Household consumption as propaganda in Marshall

Plan Germany" in *Journal of Contemporary History* 40, no. 2 (2005), 261–88.

4 "Design Today in America and Europe: Catalogue" in *International Program Records in the Museum of Modern Art Archives* (New York: MoMA, 1959).

show was not solely an American diplomatic push but more of an Indian economic pull. The US seized the opportunity to explore India as a testing ground for promoting capitalist culture and simultaneously sought to harness India's potential as a consumer.⁵ In a MoMA press release, this endeavour was expressed as "a result of [a] unique venture in international cooperation by public and private agencies".⁶ The show proved to be exemplary of the symbiotic transference of mid-century modernity from one part of the globe to another.

The 400 household objects included chairs, lamps, glassware, kitchen utensils, textiles and tools from the 18th century to contemporary times, and ranged in origin from Europe to the US. As suggested in an exhibition release by Pupul Jayakar, a Gandhi disciple and an influential member of the All-India Handicrafts Board as well as a significant mediator of post-colonial design-reformation efforts, the objective was to draw attention to the place and function of materials and tools in the creation of objects for daily use, and not to replicate objects directly to become a part of Indian life nor to adopt the way of life that such objects demanded.⁷ Indian bureaucratic expectations of this exhibition, as described by Manubhai Shah, Union Minister of Industry, focused on learning how the visual appearance of Indian objects could be made more appealing as mass consumption goods,⁸ the concern being to use design primarily to make objects more presentable on the global market. Such a pragmatic role for design was closely linked to the synthesis of India's home market of consumer goods with its global dispersal. In the introduction to the exhibition catalogue Shah stated that

The degree of success in making a product depends greatly on the extent to which a fusion of technical quality, functional excellence and visual design is achieved ... [Design must create] an immediate and overwhelming appeal to a buyer.⁹

Manubhai Shah continued to urge, to advise and to warn manufacturers: "A manufacturer must, therefore, look ahead to produce goods that are pleasing to [the] eyes and satisfying [in] function."¹⁰ At the opening ceremony in New Delhi, he praised American and European design and pointed out the lessons for India:

This does not mean that we in India should produce the exact replica of these ... we have to produce simple, artistic and beautiful designs for articles consistent with our way of life and suitable to our genius ... we welcome this because an exhibition of this kind would serve the purpose of a visual demonstration of the effect of good industrial designing.¹¹

In his opening remarks Vice President Dr S Radhakrishnan beseeched the industrialists and craftsmen of India to adopt "quality above cheapness", calling on local manufacturers, designers and artisans to act under the rubric of "blend beauty with utility".¹² This was an approach notoriously similar to the Victorian revivalist attitude towards industrial products.¹³ The immediate post-independence Indian bureaucracy was troubled by this bid to locate India within global cultural politics. While on the one hand the nation's collective memory was still enthralled

5 Arthur Robinoff, "Incompatible Objectives and Short-sighted Politics" in Sumit Ganguly, Brian Shoup & Andrew Scobell (eds.), *US-Indian Strategic Cooperation into the 21st Century: More than words* (New York: Routledge, 2006), 43.

6 "Design Today in America and Europe: Publicity" in *International Program Records* (New York: MoMA, 1959).

7 "Textile and Ornamental Arts of India", *International Program Exhibition Records*, VI.ICE-D-5-54.2 (New York: MoMA Archives, 1955).

8 "Design Today in America and Europe: Catalogue", VII.SP-ICE-17-57.8: Indian Tour (MoMA).

9 Ibid. VII.SP-ICE-17-57.8: Indian Tour.

10 Ibid. VII.SP-ICE-17-57.8: Indian Tour, 8.

11 MoMA press release, "Textiles and Ornamental Arts of India on View at Museum of Modern Art", http://www.moma.org/docs/press_archives/1928/releases/MOMA_1955_0043_27.pdf?2010

12 *The Times of India* (16 January 1959).

13 Arindam Dutta, *The Bureaucracy of Beauty: Design in the age of its global reproducibility* (New York: Routledge, 2007).

A long queue for the opening of the MoMA exhibition, New Delhi, 23 March–8 April 1959. The Buckminster Fuller dome was installed by the United States Information Agency.



Chief Minister K Kamaraj (seated) at the opening ceremony. MoMA exhibition, Madras, 10–30 June 1959.



MoMA's strange domesticity becomes more than a curiosity. New Delhi, 1959.



by the Gandhian spirit of asceticism, on the other Nehru's sympathy for Soviet-style socialism and (paradoxically at the same time) his longing for America's promised land of consumer goods created a complex situation.¹⁴ It resulted in local businessmen selecting cutting-edge artefacts from MoMA's exhibition, all industrially-produced, transatlantic consumer goods, to inform both vernacular artisans and community-based small industries.

While the enthusiastic response of the Indian press to the exhibition as it travelled through the nine cities was partially responsible for the large attendances, it is difficult to reflect on the nature of the people's reaction to the exhibition.¹⁵ *The Hindustan Times* called the show "a really fine exhibition" while *The Times of India* commented that "The western world has combined utility with beauty."¹⁶ Commenting more directly on the economic purpose of the show, *The Statesman* reported: "Human hands and sweat can produce only a small fraction of the things that people need to live decently. Only machinery can satisfy the needs of the millions who inhabit the earth."¹⁷ Pupul Jayakar's statement pointed out that India was on the fringe of a technological revolution which could potentially

14 In the decade following independence, India struggled to forge its national image and locate itself in the global economy and cultural politics. Consequently, the concept of free transference of global consumer objects was not very popular. In 1954, AD Shroff, a Bombay economist, started a forum for free enterprise and consumer goods, an idea at odds with views influentially articulated by the Planning Commission. At the same time, a communist journalist from Cambridge, Philip Spratt, wrote that the Soviet economic model would lead to the

"smothering of free enterprise, a famine of consumer goods": Ramachandra Guha, *India after Gandhi: The history of the world's largest democracy* (Delhi: Harper Perennial, 2008), 682. Slowly but steadily the debate around consumer-goods production acquired a significant position in Indian economic discourse. The socialist camp sensed an inevitable submission to consumer culture. As Greg Castillo argues with regard to the USIS exhibition in East Germany, there was a general acceptance that the late socialist condition had submitted to US consumer goods as privileging a

rewarded part of society: Greg Castillo, "The American 'Fat Kitchen' in Europe: Postwar domestic modernity and Marshall Plan strategies of enchantment" in Ruth Oldenziel & Karin Zachmann (eds.) *Cold War Kitchen: Americanization, technology, and European users* (Cambridge, MA: MIT Press, 2009), 287.

15 The exhibition attracted more than a million visitors from all over the country.

16 "Design Today in America and Europe: Catalogue", MoMA, VII.SP-ICE-17-57.7.

17 Ibid.

Inside the exhibition dome.
Amritsar, 16 January–16 February 1959.



The NID store of objects reminiscent of MoMA's 1959 design exhibition, used now in the classroom as examples of the modernist aesthetic and production techniques.



A page from the "Design Today in America and Europe" exhibition catalogue (Greta Daniel & Arthur Drexler, 1958).



result in a loss of pride in craftsmanship and traditional design standards unless attention was refocused on new materials and tools. The solutions developed by the Western world would serve to guide and stimulate the imagination of Indian designers and manufacturers.¹⁸

From MoMA's perspective, mounting such an exhibition was part of the American response to India's own will to become modern, to be visible in the world market and potentially worthy of participating in the global politics of modernity. MoMA's director of exhibitions and publications, Monroe Wheeler, who conceived an exhibition of the Indian *object* during a visit in 1953, wrote of India that "a country which had [20 years earlier] been mysteriously somnolent and apathetic had, since its independence, come amazingly to life." He said that he "encountered everywhere an enthusiastic desire to improve living standards and provide better educational facilities".¹⁹

After the MoMA show ended in 1961, the objects were presented to the Indian government to form the nucleus of a permanent collection for the benefit the people of India over a longer period. The objects were in turn handed over to the NID for presentation to students as examples of possible points of departure for creating a new Indian modernity.²⁰ Over the decades, these objects have been a source of inspiration for generations of Indian designers.

NID's pedagogical turn towards Europe

Pupul Jayakar approached Gautam Sarabhai with a proposal for an institute that would improve the design of industrial and mass-consumer products. A visionary industrialist, Sarabhai, who had supported the establishment of various educational and research institutes, came to symbolize new India's progressive, liberal businessman.²¹ Jayakar was the vital mediator that forged Indian design's super-team with Douglas Ensminger, director of the Ford Foundation in India, representing the primary sponsoring organization; KV Venkatachalam, Joint Secretary, Ministry of Commerce and Industry, providing the required bureaucratic platform; and G Sarabhai contributing his efficient administrative leadership. However, a year before the 1959 MoMA exhibition, Charles and Ray Eames were commissioned by the Indian government and sponsored by the Ford Foundation to outline a national design institute for India. Though a source of philosophical inspiration for generations of Indian designers, *The India Report* – or the "near mystified report", as Ashoke Chatterjee described the document that the Eames submitted in 1958 – proved inadequate for setting up a design school.²² Pupul Jayakar has suggested that though the joint political-economic expectation of the Ford Foundation and the Indian government was a project report on a design institute that would serve small industry, the Eames's emphasis was mainly on defining or understanding "Indian" design. This search for a difference was not merely to make binaries of Western and traditional values, but to reconcile a negotiated marketplace of assorted objects. In 1960 the Ford Foundation deputed the Danish architect Vilhelm Wohlert and Swiss photographer Ernst Scheidegger to develop a working plan based on the Eames's report. They

18 Ibid.

19 Monroe Wheeler (ed.), *Textiles and Ornaments of India: A selection of designs* (New York: MoMA, 1956), 11.

20 MP Ranjan, former designer and professor at NID, in conversation with the author (April 2009). For more on Ranjan see MP Ranjan blog, "Gajanan Upadhyay: A new monograph and exhibition of furniture designs",

<http://design-for-india.blogspot.com.au/2009/06/gajanan-upadhyay-new-monograph-and.html>

21 Gautam Sarabhai and his wife Kamalini established the Calico Museum of Textiles in 1949 and the BM Institute of Mental Health in 1951, both in Ahmedabad.

22 Pupul Jayakar, "Charles Eames 1907–1978: A personal tribute", *Designfolio* (Ahmedabad: January 1979) 2.

came up with a pragmatic proposal the following year predicated on workshop-based design learning that would enable India's "human resources" to provide a comprehensive solution.²³ The basic approach of "learning through doing" reflected the Bauhaus commitment of Hildebrandt, Kerscheneiner, Montessori and Dewey as well as a pragmatic opposition of the humanist tradition. However, on the basis of the Wohlert-Scheidegger report and with financial assistance from the Ford Foundation, the government of India established the National Institute for Industrial Design, as it was originally named, in September 1961. It was later renamed the National Institute of Design.²⁴

While the Eames's report provided the moral framework for the institution, it was the German connection in general, and the Hochschule für Gestaltung (HfG) at Ulm more specifically, that had a profound impact on the formation and evolution of NID's pedagogical philosophy. However, in tracing the various overlapping factors that shaped the pedagogical scheme of the departments for industrial design and product design at NID, several scholarly works have argued that the initial involvement of the HfG in guiding the curriculum was naively oblivious to the Indian context.²⁵ In such analyses, the NID appears a passive recipient of Ulm's design ideology. Contending such an approach Saloni Mathur's article in this collection offers an inverse perspective, discussing how India framed Charles Eames within

23 Ernst Scheidegger & Vilhem Wohlert, *Proposals for an Institute of Design Training, Service and Research* (New Delhi: Ford Foundation, 1960).

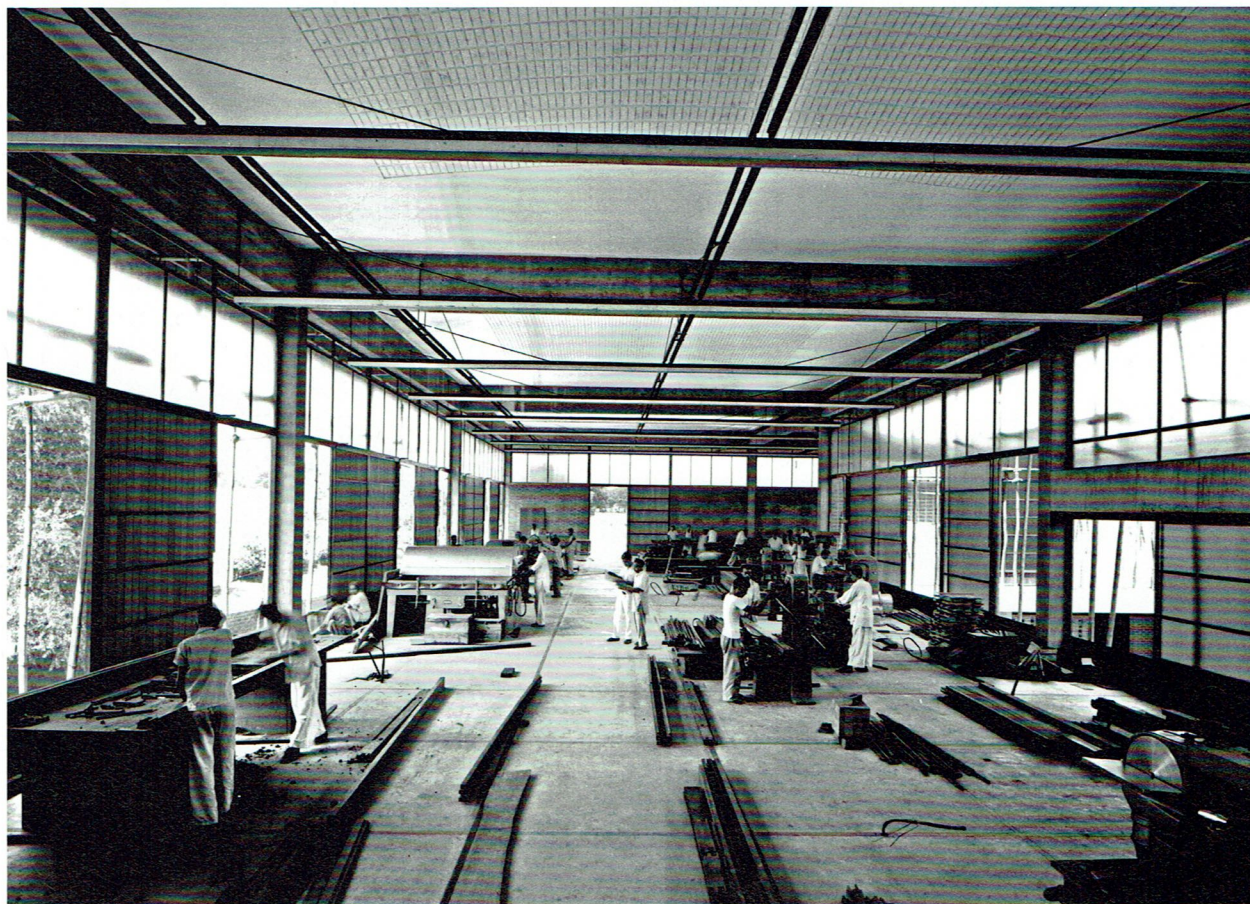
24 The first grant of US\$ 200,000 was made in 1961. Over the following nine years, the Ford Foundation donated US\$ 120,000 annually: Ashoke Chatterjee,

RK Bannerjee & Neera Seth, "40 Years of NID", unpublished manuscript (Ahmedabad: National Institute of Design, 1999).

25 Katerina Rüedi, *Bauhaus Dream-House: Modernity and globalization* (New York: Routledge, 2010), 149-52; Sherry Blankenship, "Outside the Center: Defining

who we are" in *Design Issues* 21, no. 1 (2005): 24-31; Sherry Blankenship, "Flying a Kite: NID report from an American visitor" in *Design Issues* 21, no. 4 (2005): 23-31.

NID workshop interior, c. 1964.



its post-colonial effort to establish design institutes and to reform small-scale industry. Similarly, I propose that the partnership of the Ford Foundation and Indian bureaucrats and also the HfG's connection with the NID, while correlating with many external parameters, was primarily advanced by Indian academics and more specifically by those who were prospective NID faculty members. It was H Kumar Vyas, deputed to attend a ten-month training programme at the HfG, who started the product design programme in 1966. Sudhakar Nadkarni, a graduate of the HfG, became a faculty member of the product design course in 1967. Through Vyas and Nadkarni, the NID enjoyed a long connection with Ulm luminaries, the most prominent being Gui Bonsiepe, Kohei Suguira, Herbert Lindinger (Institut für Umweltgestaltung, Frankfurt), Christian Staub, Hans Gugelot and E Reichl (Director, Institut für Produktentwicklung, Neu Ulm).

But why the HfG? Started through Eames, who was venerated as an intellectual guru, and the Ford Foundation, was it not expected that the NID would seek deeper connections with and inspiration from US designers and design schools as soon as it acquired an autonomous footing, rather than with the HfG and similar German experiments? How did this shift fit within the broader perspective of a country that had just won independence and was struggling to find its place in the global market? The celebrated US designers of the 1950s and '60s, such as George Nelson, Ray and Charles Eames, Harry Bertola, Richard Schultz, Donald Knorr and Isamu Noguchi were all commissioned and supported by business giants such as Herman Miller, and by responding to American consumer demands served an exuberant and affluent post-war market.²⁶ The HfG experiment, on the other hand, had very different roots. What particularly attracted Indian interest were Ulm's efforts in post-fascist cultural regeneration and political reformation towards a democratic end.²⁷ Inge Scholl had embarked on establishing a new "democratic" school in honour of her siblings Hans and Sophie Scholl, slain by the fascist regime for their active involvement in the White Rose, an anti-Nazi group.²⁸ Together with Otl Aicher, a graphic artist and Nazi resister, she started the HfG to materialize broad objectives through design and technological education, and reconcile and mediate the growing schism between German *Kultur* and *Zivilization*.²⁹ For many post-war German scholars, the horrors of war were proof of the ideological power of technology, which had led to industrialized death and destruction and the historic collapse of German nationalism into militant Nazism – the failure of an enlightenment based on rationalism.³⁰ The collective antipathy towards technology, according to Joachim Radkau, "was nowhere more evident than in the fact that West German engineers never recouped their pre-1945 authority as anointed cultural heroes."³¹

The Ulmers contested this aversion to modernism and the post-Nazi technopessimisms through the redemptive power of rationalism, attempting to retain harmony and consonance between humanism and efficiency. Pre-war, Bauhaus attempted to harmonize the artist-architect into a cosmic whole.³² Post-war, the

26 Stanley Abercrombie, *George Nelson: The design of modern design* (Cambridge, MA: MIT Press, 2000). For a discussion of the mid-century boom of consumerism see Regina Lee Blaszczyk, *American Consumer Society, 1865-2005: From hearth to HDTV* (Wheeling, IL: Harlan Davidson, 2009).

27 Ajanta Sen, "Professor Sudhakar Nadkarni", <http://www.designinindia.net/design-thoughts/teachers/sudhakar-nadkarni/interview.html>

28 Inge Scholl & Dorothee Sölle, *The White Rose: Munich 1942-1943*, Arthur R Schultz (trans.), 2nd ed. (Hanover, NH: Wesleyan University Press, 1983).

29 Paula Andersen, "Vermittler zwischen Zivilisation und Kultur [Intermediary between Civilization and Culture]", *Frankfurter Allgemeine Zeitung* (4 October 1955).

30 Andreas Schüler, *Erfindergeist und Technikkritik: Der Beitrag Amerikas zur Modernisierung und die Technikdebatte seit 1900* [Ingenuity and Technology Criticism: The American contribution to the modernization and technology debate since 1900] (Stuttgart: Franz Steiner, 1990); Walter H Pehle & Peter Sillem (eds.), *Wissenschaft im Geteilten Deutschland: Restauration oder Neubeginn nach 1945?* [Science in

Divided Germany: Restoration or new beginning after 1945?] (Frankfurt: Fischer, 1992).

31 Joachim Radkau cited in Paul Betts, "Science, Semiotics and Society: The Ulm Hochschule für Gestaltung in retrospect" in *Design Issues* 14, no. 2 (1998), 70.

32 Paul Betts, "The Bauhaus as Cold-War Legend: West German modernism revisited" in *German Politics and Society* 14, no. 2 (1996), 75-100.

Ulmers' mission was to forge an *Industriekultur* rescued from Nazi corruption and grounded in the humanist tradition of social responsibility and moral education.³³ Although Scholl's vision was to establish a more radical institute to train students in progressive political and social sciences, with the appointment of Max Bill art-oriented industrial design was adopted as Ulm's main curriculum.³⁴

Max Bill's Werkbund philosophy, combined with inspiration for democratic reformation, directed HfG's initial activity in two significant ways. First, it set its pedagogical foundation to educate, in Bill's language, "citizens with working careers who think politically".³⁵ He argued that to contribute to any social reformation project, an institute should, instead of enforcing political education, reconstitute social and cultural spaces and everyday material culture. The second major effort was to abolish *gemütlichkeit* – homeliness, domesticity and comfort – from every aspect of living. This was pronounced in the new Ulm building, designed by Bill, which abolished all difference between the modernist exterior façade and the interior. All unwanted signs of Germany's past, seen in auratic cultural artefacts or extraneous details, were removed and decorative furniture was replaced by simple built-in furniture, a symbol of environmental purity and rational order. This puritanism, representing an effort to cleanse away the epistemological error of fascism, was manifested dramatically in the classic design of the Ulm stool (Ulm Hocker) by Max Bill, Hans Gugelot and Paul Hildinger. Simple, cost-effective and easy to produce, it was a multipurpose piece of furniture that could be used as a chair, night-table, workbench or step-stool or even as a tray in the school canteen.³⁶ The stool became the quintessence of Ulm's design philosophy as it consciously broke down the binary opposition of human repose and activity, and expressed the condition of a post-fascist object in flux. The physical and notional discomfort it offered to its users was believed to be a metonymic virtue that provoked users to movement and activity.³⁷

The American military took great interest in the Ulm project, as Scholl convinced its high commission in Germany (HICOG) that Ulm was a crucial cold-war project. Further, Scholl suggested that by pursuing its "dual containment policy"³⁸ Soviet expansion could be resisted at one end of the spectrum and German nationalism suppressed at the other. John J McCloy, director of HICOG, who re-established the Frankfurt School of Social Research after the war, considered Ulm a "spiritual Marshall Plan" and granted a million Deutsche marks in 1953 for its establishment,³⁹ but American endorsement of Ulm as a cultural re-educator could not win over the Ulmers' internal aversion to streamlined American design. Scholl was famously disdainful of what she called the "Nierentisch (kidney-shaped table) nightmare", the "bastard child" of designers and merchants.⁴⁰ Likewise, Max Bill's efforts to harmoniously unite art and technology faced tremendous criticism from academics who wanted to shift pedagogical focus from art to science. Discontent first surfaced through Tomás

33 Max Bill, "The Bauhaus Idea from Weimar to Ulm" in Morton Shand (ed.), *Architects Yearbook 5* (London: Elek, 1953), 29–32.

34 Max Bill, first rector of Ulm, was a former Bauhaus disciple and president of the Swiss Werkbund: Martin Krampen & Günther Hörmann, *Die Hochschule für Gestaltung Ulm: Anfänge eines Projektes der unnachgiebigen Moderne* [The Ulm School of Design: Beginnings of a project of unyielding modernity] (Berlin: Ernst & Sohn, 2003); Max Bill, "Schönheit aus Funktion und als Funktion [For Beauty and Function as a Function]" in *Das Werk* 36, no. 8 (1949), 272–74.

35 Hartmut Seeling, "Geschichte der HfG Ulm [The story of the Design Institute in Ulm], 1953–1968", PhD thesis, University of Cologne (1985).

36 Heiner Jacob, "HfG Ulm: A personal view of an experiment in democracy and design education" in *Journal of Design History* 1, no. 3/4 (1988), 221–34.

37 Eva von Seckendorff, *Die Hochschule für Gestaltung in Ulm: Gründung (1949–1953) und Ära Max Bill (1953–1957)* [The College of Design in Ulm: Foundation era (1949–1953) and Max Bill (1953–1957)], (Marburg, Germany: Jonas, 1989), 128.

38 Inge Scholl (17 April 1952), cited in von Seckendorff, *Die Hochschule für Gestaltung in Ulm*, 60.

39 Martin Jay (ed.), *The Dialectical Imagination: A history of the Frankfurt School and the Institute of Social Research, 1923–1950*, vol. 10, *Weimar and Now: German cultural criticism* (Berkeley, CA: University of California Press, 1996), 282; Thomas Alan Schwartz,

America's Germany: John J McCloy and the Federal Republic of Germany (Cambridge, MA: Harvard University Press, 1991), 156–84. The phrase "spiritual Marshall Plan" was first used by Aicher in his 1948 manuscript "Wer trug der Widerstand? [Who was the Resistance?]", cited in Paul Betts, *The Authority of Everyday Objects: A cultural history of West German industrial design*, vol. 34 (Berkeley, CA: University of California Press, 2004), 144.

40 Betts, *The Authority of Everyday Objects*, 34, 151.

Maldonado, an Argentine artist and art-journal editor who joined the Ulm faculty in 1954, and was to deeply influence Indian designers. He rejected Bill's Werkbund Bauhaus ideology outright, arguing boldly for a more scientific method at the 1958 Brussels World's Fair, where most concurred with Bill regarding the old Bauhaus and similar colonial ideology – that is, a more aesthetic and design-oriented education with the dissemination of “good form” could “fix cultural kitsch”.⁴¹ Maldonado, on the other hand, argued that the preference for the “aesthetic” in modern design was the outcome of trade interest in the Depression years in which aesthetic design was the strategy used to manipulate human needs and invigorate the consumer market. The uneasy designer-market relations within Ulm made it, in Heiner Jacob's terms, “utterly schizophrenic”.⁴² However, as a consequence of this conflict, Bill resigned as rector in 1956 and Maldonado was appointed in his place. Bill continued to teach but finally left the HfG in the following year. The theoretical effort to keep market-driven industrial interest away from educational institutes eventually trapped the Ulmers in a self-contradictory and hermetic intellectual cell.⁴³ The NID's own uneasy relationship with the profit-driven market was largely informed by this Ulm philosophy.

After Bill, the HfG pursued a radical rationalization and pushed towards using science in the design process, the principal role of the designer being to “coordinate, in close collaboration with a large number of specialists, the most varied requirements of product fabrication and usage”.⁴⁴ Unlike Bill's autonomous designers whose responsibility was limited only to a distant stylization of an object, Maldonado's new designers were embedded in the production process, and while Bill's designer was “mystical and indefinable”, Maldonado's designer was a specialist in mass production and industrial automation, ceaselessly demystifying the industrial production process through coordinating our “objective and communicative world”.⁴⁵ He termed this process a “scientific operationalism”, a critical design praxis based on separating the aesthetics and design.⁴⁶ This new materiality refuted an object's role as the signifier of moral idealism and cultural values, as it was now considered the result of socially managed and scientifically coordinated industrial resources.⁴⁷ There was an epistemological shift in the designer's role, the question of production of knowledge removed by the operational capacity or manipulability of knowledge.⁴⁸ However, Kenneth Frampton shows that Maldonado's scientific operationalism was basically rooted in Anatol Rapoport's philosophical ideas, which, published in 1953 in *Operational Philosophy*, had expanded John Dewey's pragmatic instrumentalism.⁴⁹ The central effort of this idea was to push philosophy more towards an analytical method of mathematics and to provide a system to evaluate, examine and measure alternative courses of action.

HK Vyas and Sudhakar Nadkarni worked at the HfG in its final tumultuous years, from 1962 to '66. Though Maldonado was still among its most influential personalities, the HfG's basic persuasion was trapped in a paradox that eventually led to the closing down of the school in late 1968. On his return to the NID in 1966, Vyas started the new Industrial Design section. Nadkarni had joined the NID the year before. Both the HfG and the NID were entangled in the post-colonial cold-war situation. In this regard, how did “NIDers” such as Vyas and Nadkarni hope to reconceptualize Ulm's incompatibility with late capitalism? Did they intend to reframe HfG philosophy in a Third World context? Did they think the ideology would

41 Betts, “Science, Semiotics and Society: The Ulm Hochschule für Gestaltung in retrospect”, 73.

42 Jacob, “HfG Ulm: A personal view of an experiment in democracy and design education”, 229.

43 Ibid. For a view on Ulm's uneasy relations with the profit-driven market see Abram Moles, “Functionalism in Crisis”, *Ulm* 19/20, August (1967), 24–25.

44 Tomás Maldonado, “Neue Entwicklungen in der Industrie und die Ausbildung des Produktgestalters” [New Developments in Industry and the Training of Designers], *Ulm* 2 (October 1958), 33–34.

45 Tomás Maldonado, “Communication and Semiotics in the Trilingual Publication”, *Ulm* 5 (July 1959), 69–78.

46 Ibid. 73.

47 Tomás Maldonado, “New Developments in Industry and the Training of Designers” in *Architects' Yearbook* 9 (London: Elek, 1960), 154.

48 Ibid. 40.

49 Kenneth Frampton, “Apropos Ulm: Curriculum and critical theory” in *Oppositions* 3 (May 1974), 25.

be relevant in India, and what mechanisms would they follow for contextualizing, adopting, re-engineering and/or assimilation? Moreover, did the retired Ulmers see the possibility of Ulm ideology flourishing in a Third World context? Was there the possibility of a rebirth, a repercussion or an after-effect? Did they believe that the core essence of Ulm theory could be regenerated to flourish in contrasting regional situations?

During the formative years of the HfG, its ideology had to respond to that of the Bauhaus, which had cut across nationalism's inner tensions and contradictions, across an expanding market capitalism and a long technological culture descended from enlightenment's functionalism. However, the NID had no such organized ideology to which it needed to respond. Imperial authority generally had a derogatory interpretation of Indian design and its effort through various art schools to improve the "taste" of Indian craftsmen had feeble connections to both the domestic and emerging global markets.⁵⁰ The colonial project of craft improvement had been a framework of subjugation, worked almost entirely through sterile bureaucratization of India's collective aesthetic practice.⁵¹ The NID pioneered post-colonial design institutes, addressing "design" as a modern profession for the first time within market conditions. Well aware of the fundamental incompatibility of the NID with the HfG, NIDers looked for a model for post-colonial design discourse that would place the Western enlightenment's meta-narrative as merely an "alternative way". Instead of British, Mughal and native feudal practices, referred to in an indefinite sense as extra-colonial, vernacular design practice became the central concern.⁵² The discourse went beyond colonialism's theory of racial regression to suggest a universal historical dynamism that tied pre-colonial Indian design tradition to the contemporary context. In a new discursive formation of historical pedagogy, which Vyas termed the "lateral method", Western and Indian cultures were studied as parallel streams that occasionally intersected, rather than as representative of two contradicting civilizations.⁵³

Significantly, the NID discourse brought non-affluent consumers from the vernacular population into the thinking sphere of designers, with poverty in this regard often appearing as an asset rather than an impediment.⁵⁴ In the context of the economic miracle of Marshall Plan Europe, Ulm had struggled to expand consumer demand while searching for a model that would sustain a relationship between perverse consumerism and efforts to moralize industrial production.⁵⁵ The HfG faulted countries outside strict market capitalism for not fully exploring the possibility of that exteriority, Maldonado accusing Soviet designers of complacency, of not being critical enough to explore the privileges they enjoyed as part of a non-competitive market structure, at a design conference in Aspen in 1961.⁵⁶ The NID discourse was similarly predicated on the effort to empower the non-affluent Indian market. Strict state controls intended to encourage local imports and discourage external imports protected the Indian market from global competition. This relatively uncompetitive market was initially unfavourable for the design profession, its advocacy of qualitative excellence seemingly paradoxical to the deliberately

50 Abigail S McGowan, *Crafting the Nation in Colonial India* (New York: Palgrave Macmillan, 2009).

51 Dutta, *The Bureaucracy of Beauty*.

52 This idea has been reiterated in a broader historical frame: Kapila Vatsyayan (1989), "Culture and Design" in *Leading Lights on Design: 23 convocation addresses* (Ahmedabad: NID, 2000).

53 Singanapalli Balaram, "Design Pedagogy in India: A perspective" in *Design Issues* 21, no. 4 (2005), 11–22; S Balaram, *Thinking Design* (Delhi: Sage, 2011); H Kumar

Vyas, *Design, the Indian Context: Learning the historical rationale of the Indian design idiom* (Ahmedabad: NID, 2000); H Kumar Vyas, "Design History: An alternative approach" in *Design Issues* 22, no. 4 (2000), 27–34.

For discussion of the influence of Ulm on NID's design pedagogy see MP Ranjan, "Lessons from Bauhaus, Ulm and NID: The role of basic design in PG [postgraduate] education, 2–5 March 2005", paper presented at the International Conference on Design Education (Ahmedabad: NID, 2005).

54 Lalit Kumar Das, "Culture as the Designer" in *Design Issues* 21, no. 4 (2005), 68–77.

55 Michael Erlhoff, "Between Utopia and Reaction" in Herbert Lindinger (ed.), *Ulm Design, the Morality of Objects: Hochschule für Gestaltung Ulm, 1953–1968* (Cambridge, MA: MIT Press, 1991), 38–50.

56 Tomás Maldonado, "Design Education" in Gyorgy Kepes (ed.), *The Education of Vision* (New York: George Braziller, 1965), 132.

limited consumer choice. Not surprisingly, first-generation NID graduates in the 1970s were looked upon by the business community as a "postponable luxury".⁵⁷ Although following two very different trajectories, Ulm and the NID thus confronted similar situations of resolving the tension between competitive and non-competitive markets, and were often misinterpreted or misrepresented by the market as avoidable appendages.

The NID invited Hans Gugelot in 1965 to help develop the curriculum of the Product Design department. A long-time faculty member of Ulm, Gugelot was famous for inventing the "system design" of furniture. His brief stay at the NID evinced an Ulmer's interpretation of Third World development and of Indian aspirations towards an affordable modernism in material culture.⁵⁸ While in Ahmedabad, his designs included a sitting-room suite and matching table made in collaboration with Gajanan Upadhyay, an architect who joined the NID faculty in the summer of 1965. The main objective was to devise a system of mass producible and standardized elements made of local material and within local abilities and skills. Standardized elements needed to be designed in such a way that they could be used for a variety of furniture needs.

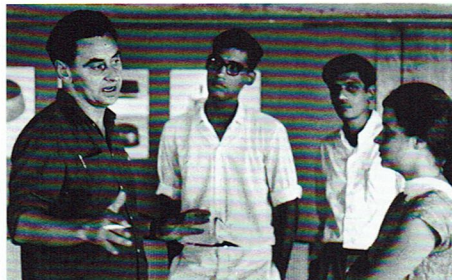
Multiplicity of function and employment of the same elements for different designs was profoundly connected to Ulm's democratization effort, but chairs for India faced unique issues. Sitting in a chair was culturally unfamiliar to general Indian

57 Ashoke Chatterjee, "Design in India: The experience of transition" in *Design Issues* 21, no. 4 (2005), 6.

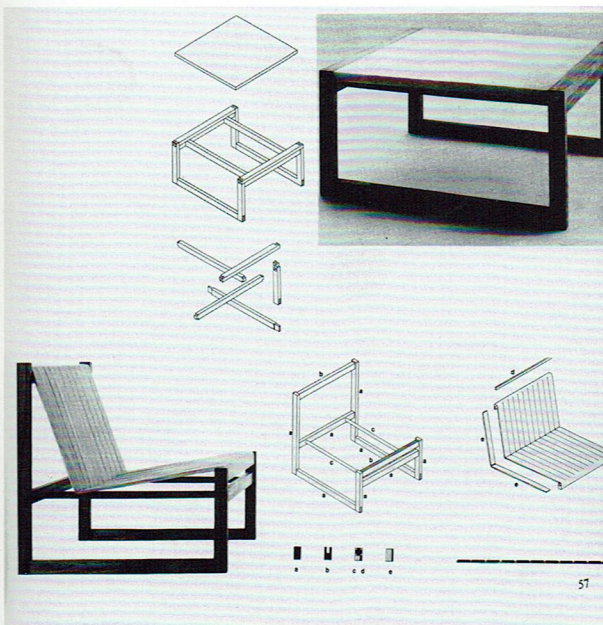
58 According to H Kumar Vyas, Gugelot's empathy with India was perhaps the result of a childhood connection with Indonesia, which allowed him to think beyond the usual dependency theory. Gugelot

suggested that Third World development should be free from the first world's direct involvement. [RK Banerjee, "40 Years of NID", 30.]

Hans Gugelot with students. NID, 1965.



India Lounge. Design Hans Gugelot, 1965.



perceptions. The various sitting postures (*asana*) on the ground were analogous to yogic postures and the traditional grid and space division system (*Vastu*), symbolized by a seated man. When designing for the general population, Indian designers preferred to accommodate the traditional *asana* or sometimes the squatting position of the Indian body rather than elevate it over a raised platform, on the “chair” of Western culture.⁵⁹

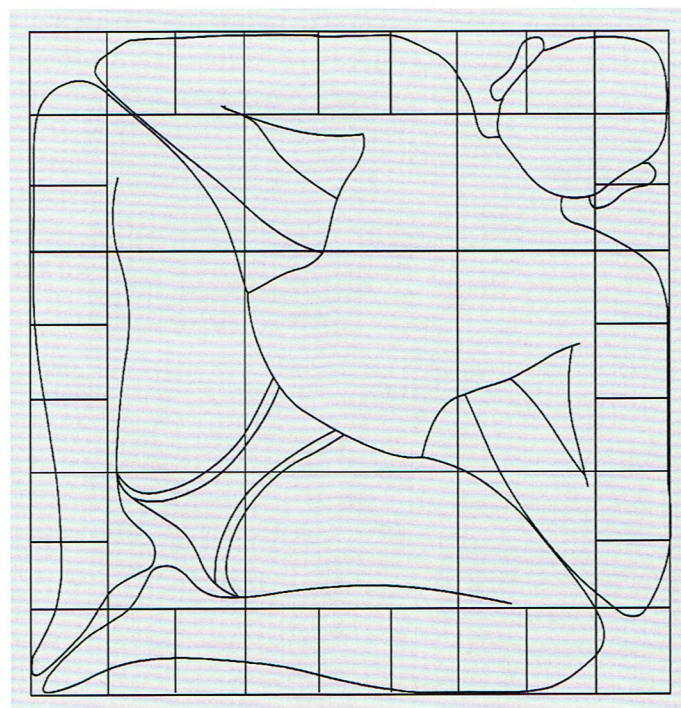
Western modernists have considered chair design among the most sensitive of technical decisions and the highest achievement of Western design, no other design capable of framing the user and symbolizing a work-repose dialectic.⁶⁰ A possible negotiation in designing an Indian chair was to make it low in height so that the body posture would be similar to the familiar traditional squatting position or *asana*, while for office work bodies followed a more universal corporate-environment posture. During the 1950s the “Indian chair” – quintessential of Indian culture and character – was predominantly the lounge within the domestic environment, mostly representative of the reposing body at home. In a later development, but mostly within academia’s experimental sphere, the vast swathe of working bodies outside the corporate world, who did not use chairs as such but performed their work from a sitting position, was identified in the design realm, but no such design was possibly ever produced on a mass scale. Gugelot, apparently inspired by this “low height” tenet, used Indian teak for the structural elements of his design, the most suitable wood for the Indian climate, easily procured as well

59 In Western perception, a chair elevates the body from the earth and thus distinguishes the two different spheres of bodily movement, the space of the earth and the space of work. For its capacity to give different

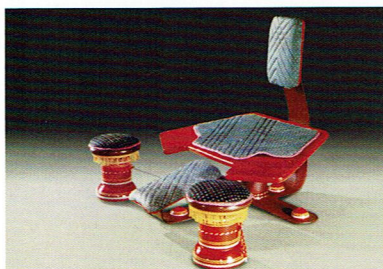
epistemological stances distinct expressions, the most influential mid-century design critic Arthur Drexler wrote in 1959: “In the Western world there is one object in which all problems of design come to a sharp

focus: Chair.” (“Design Today in America and Europe: Catalogue”, MoMA, VII.SP-ICE-17-57.8: Indian Tour.)
60 Galen Cranz, *The Chair: Rethinking culture, body, and design* (New York: WW Norton & Company, 2000).

Vastu Purusha Mandala. 9 × 9 square.



Chair to support the traditional Indian sitting posture. Design Uday Athavankar.



as traditionally considered the most elegant. Gugelot and Upadhyay developed a system of members and joints, and the result was a unique structural system of standardized elements of identical cross sections that could be used both inside and outside and on wet surfaces.

As an Ulmer, Gugelot believed that a “form” is only the analytical decision of a scientifically manipulated structural system, and he eventually declared that he would cease to design individual furniture pieces, instead developing only “furnishing systems”.⁶¹ His design pursuit was to develop ingenious connections to hold standardized elements that would allow any complex furniture to be disassembled easily, informed largely by what was termed “system design” in the 1920s by Marcel Breuer, Bruno Paul and Josef Hillerbrand. In his analytic explanation, any system capable of breaking down inherently retains the prospect of reassembly into a comprehensive structure; in a sense it was the visual expansion of Ulm’s democratic ideal that seemed to think in terms of a structuring/destructuring dialectic.⁶² His 1959 classic design of Armchair gs1076, for his long-time patron and manufacturer Wilhelm Bofinger of Isfeld, is a demountable chair gracefully balanced on a single screw in the middle of a cross structure. His other more celebrated design was the M125 project for Zürich’s Wohnbedarf AG and Wilhelm Bofinger’s design firms, a modular system of standardized elements of shelf slats and wall cabinets that could

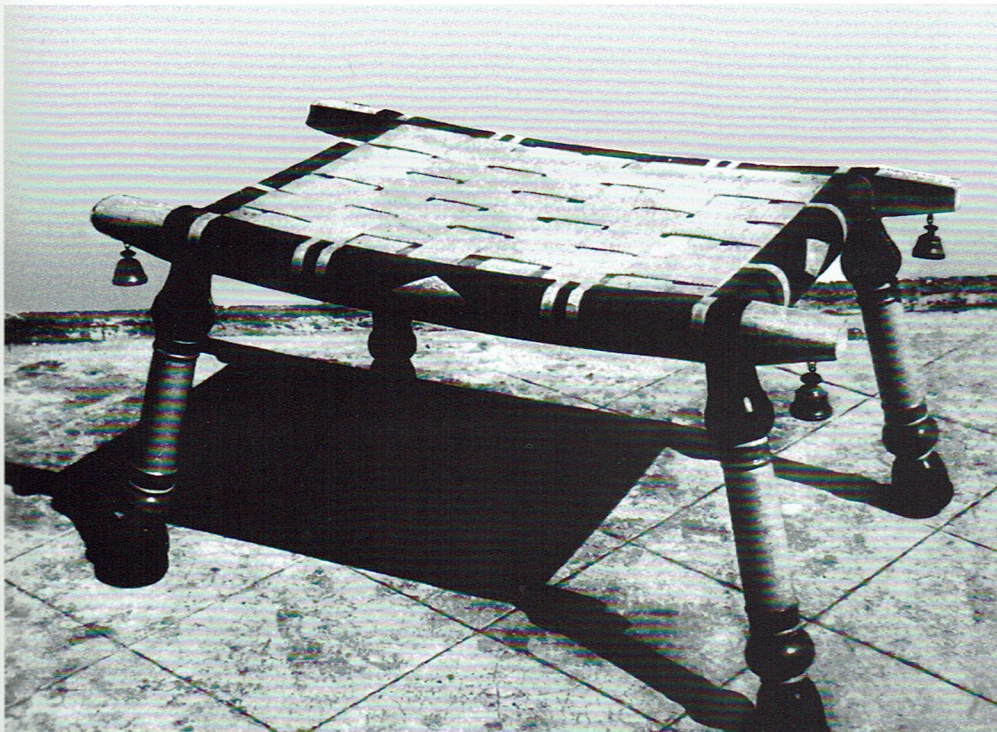
61 Werner Blaser & Hans Gugelot, *Element, System, Möbel: Wege von der Architektur zum Design* [Element, System, Furniture: From architecture to design ways] (Stuttgart: Deutsche Verlags-Anstalt, 1984); Hans Gugelot, “System-Design Bahnbrecher [System-Design Pioneer]: Hans Gugelot, 1920–1965” in Otl

Aicher & Hans Wichmann (eds.), *The New Collection from the State Museum for Applied Art, Munich April–June 1984* (Munich: Die Sammlung [The Collection], 1984).

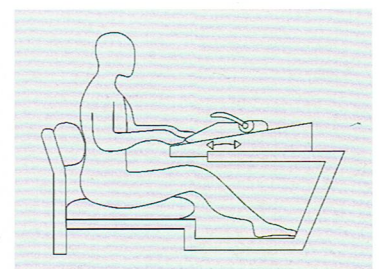
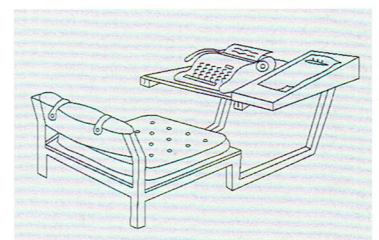
62 Klaus Krippendorff, *The Semantic Turn: A new foundation for design* (Boca Raton: CRC Press,

2006). For a discussion of the influence of semantics on Ulm’s design philosophy through educator and philosopher Max Bense, see Betts, “Science, Semiotics and Society: The Ulm Hochschule für Gestaltung in retrospect”, 67–82.

Indian stool (Government Design Cell).



Student design for a “freelance typist”.



be interchanged and rearranged into shelves, cabinets and/or storage systems depending on the user's demands and preferences. In his 1960 lecture in Tokyo Gugelot explained that

The contribution of the industrial designer will be to enhance the use value of an article. Through his coordinating activity, his constructional ability, and his specialized concern with the relationship between human beings and the equipment they use, he, alone among the members of the team, determines the final structure of the product.⁶³

The essence of a system design of interchangeable and standardized elements, assembled in many ways to suit various functions for various spaces, was the effort to dissolve the irreconcilable fragments of disparate space for work and home, and then, with visual hygiene, fuse them into a single visual system or use-value rationality.⁶⁴ It confronted the market invention of "personalized design" and offered to nourish users' individual expressions through the flexible rearrangement of modular elements. After Gugelot's sudden death in 1965 his task at the NID was continued by Herbert Lindinger and HK Vyas.

Gajanan Upadhyay, Gugelot's associate at the NID, was then a young faculty member of the Industrial Design section, having earlier graduated in architecture from Baroda's MS University and done blue-collar work in a metal workshop as well.

63 Hans Gugelot, "Lecture in Tokyo", cited in Herbert Lindinger (ed.), *Ulm Design, the Morality of Objects: Hochschule für Gestaltung Ulm, 1953-1968* (Cambridge, MA: MIT Press, 1991), 86.

64 Blaser & Gugelot, *Element, System, Möbel*, 57. For the phrase "visual hygiene", see Hans Gugelot "Hypothesen zur Berücksichtigung des Marktes bei der Produktgestaltung [Hypotheses to account for

the market in product design]" in Gugelot, "System-Design Bahnbrecher: Hans Gugelot, 1920-1965", 53.

M125 furniture system. Design Hans Gugelot.

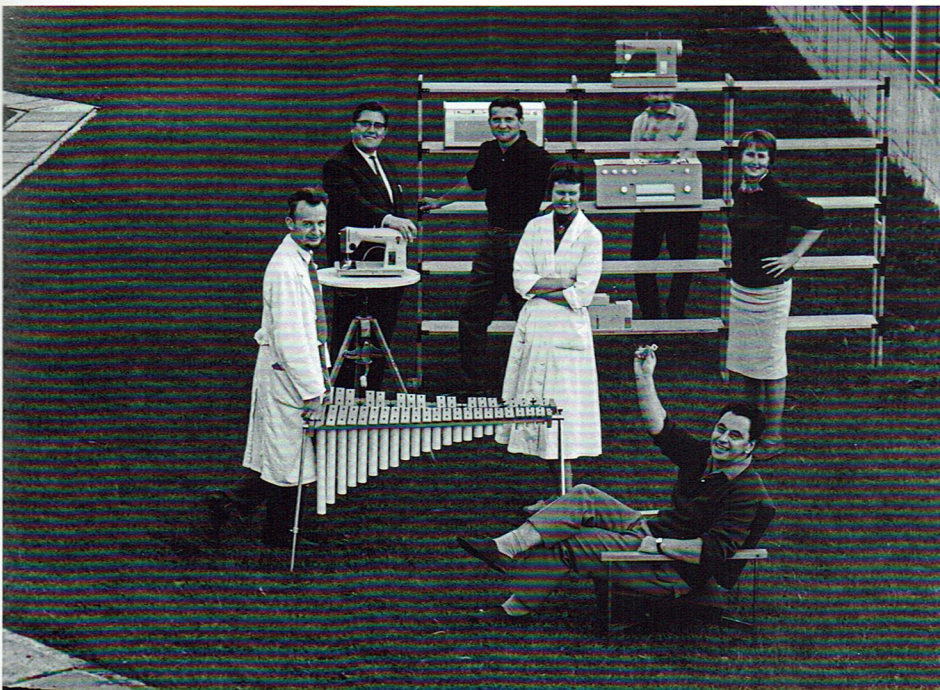


Between 1962 and 1965 at the NID he was associated with Charles and Ray Eames in designing round stick furniture and with George Nakashima in lounge design. However, it was Gugelot's system of knockdown furniture made of standardized elements that deeply influenced Upadhyay's design philosophy. Upadhyay's 1964 design, 24/42 furniture, took Gugelot's recommendation of 24 mm × 42 mm German wood sections as a guiding module for easy chairs, low-height tables, work tables, beds and storage spaces. The wood-slat reinforced seat and back of the easy chair and the slatted bed could have been influenced by Gugelot's use of pre-stressed wooden slats used in the Ulm bed and at the back of the gs1076. After graduating in 1966 from the Royal Danish Academy of Fine Arts in Copenhagen and working with Poul Kjærholm and Nils Fagerholt amongst others, Upadhyay rejoined the NID in 1974 and further advanced the idea of mass producible knockdown furniture in teak.⁶⁵ His design for a semi-knockdown chair, the Classic chair of 1978, used teak as the basic structural material and a relatively narrow strip (4 cm) of the canvas used locally to make bags for pack animals. However, Upadhyay used the 24/42 module to set the width and other proportions of his Classic chair.⁶⁶ Another significant experiment of the early 1980s was Upadhyay's low-cost furniture for NID's residential needs, in mango and pine woods that were uncommon for designing "elegant" furniture. Upadhyay used them for their cost effectiveness, and designed standardized short-length members to comply with the woods' low

65 Upadhyay opened a practice in Copenhagen with Dan Svart and Peter Hjoert Lorenzen. On different occasions he also worked with Vibeke Klint, Dorte Raaschou, Borge Mogensen, Bo Bonfils, Jens Moeller Jensen, Rigmor Anderson and the museum inspector Werner Jakobsen.

66 Ranjan, "Gajanan Upadhyay: A new monograph and exhibition of furniture designs"; Bimal Patel & Ismet Khambatta, *Gajanan Upadhyay: Furniture designer*, unpublished monograph (Ahmedabad: 2009). See also Ranjan's blog, "Gajanan Upadhyay: A new monograph and exhibition of furniture designs".

Hans Gugelot and his team with their innovations.



strength and natural instability, but made the connecting joints more resilient. The furniture was of a semi-knockdown type, capable of reassembly several times without losing strength in its members and joints. When not using the knockdown principle, Upadhyay's drawings display an exploded axonometric method. The "buoyant" elements demonstrate coherent agreement with other elements in the system yet retain their individualism within a structure, reminiscent of De Stijl, Bauhaus and the system design that had passed down to the NID in many forms.

Postscript

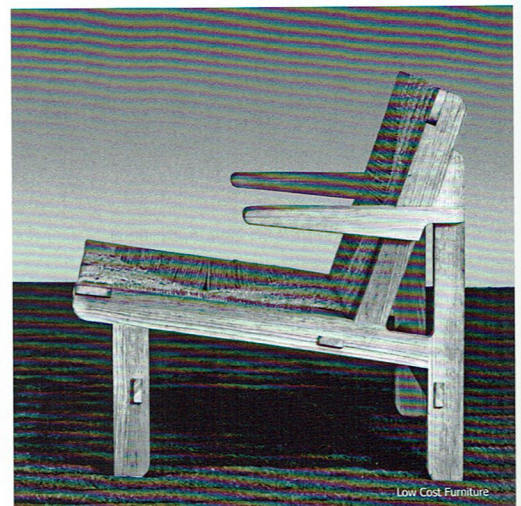
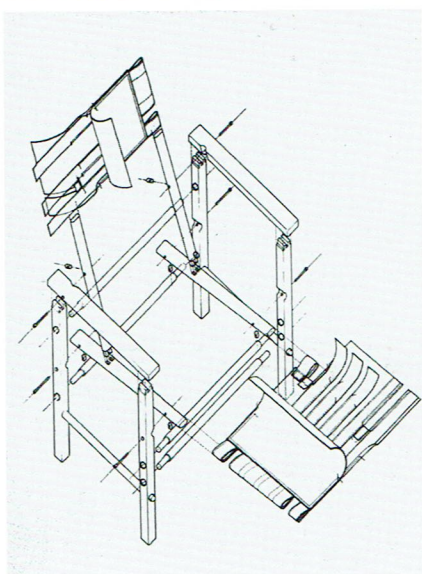
Scholars have been anxiously observing evolving design trends in the developing countries aligned almost uncritically with market forces, where design, once again, is a manipulative tool to increase consumer demand.⁶⁷ The Nehruvian concept of accelerating "development" through the establishment of the NID and similar institutions is now largely analysed as a First World implication of American hegemony. The Third World responded with a form of alternative modernism, or "alter-modern" in Hardt and Negri's words.⁶⁸ As Mathur argues, when the designer's role has been transposed from cold-war salvager of humanity to creative instrument for facilitating market competition, the relevance of the early import of Western

67 Sulfikar Amir, "Rethinking Design Policy in the Third World" in *Design Issues* 20, no. 4 (2004), 68–75; H Alpay Er, "Development Patterns of Industrial Design in the Third World: A conceptual model for newly industrialized countries" in *Journal of Design History* 10, no. 3 (1997), 293–307; Karen Fiss, "Design

in a Global Context: Envisioning postcolonial and transnational possibilities" in *Design Issues* 25, no. 3 (2009), 3–10.

68 Michael Hardt & Antonio Negri, *Commonwealth* (Cambridge, MA: Harvard University Press, 2009).

Gajanan Upadhyay's Classic chair (below) and low-cost furniture (right).



ideas on vernacular-design empowerment needs to be revisited. Though Ulm shut down in 1968 after a long, uncompromising struggle with insatiable consumerism and narrow market interests,⁶⁹ Indian contemporary design discourse, that had adopted Ulm and many other Western institutions in a myriad of ways, is now considering a new usage of design to strengthen the presence of Indian products in the global market, in tandem with the recontextualization of “barefoot designers”.⁷⁰ This apparent Janus face of design, to empower both the consumer market and non-consumers outside the market, was not included in Ulm’s development prescription for the Third World. Claude Schnaidt’s discussion, in the penultimate issue of the journal *Ulm*, of the crisis of functionalism and the future direction of Third World development merits an extensive excerpt:

... we have our duties towards the under-developed countries. The habitat situation in these countries is catastrophic ... And since these countries also have to solve the problems of hunger, disease, ignorance and the creation of means of production, they must appeal to foreign countries for aid. Unfortunately this barely covers the losses they suffer as a result of their economic dependence. These losses are incurred by the repatriation of the profits of foreign firms and the growing gap between the prices of raw materials and the process of manufactured products ... The under-developed countries must tackle their problems by their own means and make the countries that dominate them today treat them as equals. But in the meantime we must help all those organized groups who, in the Third World, are fighting against external and internal oppression. At home we must demand a foreign policy of balanced development: a development depending not on licence agreements, car exports, and wastage but on the utilization of natural and human resource.⁷¹

In a multi-directional turn, independent India’s practice of domesticity ventured to remove the stigma attached to the term “Indianness”. India also distinguished its trajectory from capitalism’s dominant modernity, calibrating its domesticity with other Third World allies. In contrast, the newly-emerging modern India, moving up the development scale, indicated that it was no longer merely a consumer of the material spectacle that the West had been producing for two centuries, but an active promulgator of its own Indian version of the contemporary spectacle. While celebrating a model of affluence, there has also been in India a resurgent challenge to indulged domesticity and exuberant materialism, long veiled by the dominant discursive practice of Western modernity. When exploring this ambivalent zone of history to discern the other possibilities of Indian modernity it is apparent that theory and praxis have been extended to include both aspects of the complex contemporary package of spectacular consumerism and poverty. In this unique bipolarity the overarching triumph of micro finance and the “end of charity for self-help” has increased the scope and accessibility of the market to an extent previously unimaginable.⁷²

69 Martin Krampen & Horst Kächele, *Umwelt, Gestaltung und Persönlichkeit: Reflexionen 30 Jahre nach Gründung der Ulmer Hochschule für Gestaltung* [Environmental, Design and Personality: Reflections 30 years after the founding of Ulm School of Design] (Hildesheim: Georg Olms, 1986), 986.

70 The term “barefoot designer” was coined by S Balam after Mao Zedong’s “barefoot doctor” of the cultural revolution: Balam, *Thinking Design*, 155–67. There has been a strong trend in Indian design

discourse to consider design as a mechanism for development, as in Ashoke Chatterjee, “The DNA of Design for Development” (Karachi: Indus Valley School of Art & Design, 2005), and “Design as a Strategy for a Developing Economy” (Bombay: Industrial Design Centre, IIT, 1989, 2009), <http://www.idc.iitb.ac.in/resources/reports/design-as-a-strategy-developing-economy.pdf>

71 Claude Schnaidt, “Architecture and Political Commitment” in *Ulm*, no. 19/20 (August 1967), 27–34.

72 My special thanks to Shanay Jhaveri for encouraging me to write on Hans Gugelot and the NID. I am also indebted to Professor MP Ranjan for his insightful comments and suggestions. Saloni Mathur’s and Abigail S McGowan’s critical advice was specifically helpful. I would like to thank the hospitable team of NID faculties who assisted me through various phases of the research.