

ICDHS 2008 OSAKA PROGRAM

(2008/10/16 VERSION)

ONC: Osaka University Nakanoshima Center (Main Venue)

NMAO: National Museum of Art, Osaka (250m from ONC)

KNS: Keihan Naniwabashi Station (1400m from ONC)

PRE-OPENING TOURS / REGISTRATION / RECEPTION (Afternoon and Evening of Friday, 24 October)
Kobe Pre-Conference Tour (13:00-17:00), Osaka Pre-Conference Tour (13:30-17:00), meeting at the glazed entrance of NMAO
International Advisory Board meeting (15:00- 16:30) at the ONC Special Meeting Room (9 th floor)
Registration (16:00-20:00) at NMAO
Guided Tour of Osaka National Museum of Art exhibition 'Self and Other' (18:00-19:00) at NMAO
Reception (19:00-20:30 / All participants and auditors are invited) at NMAO

OPENING AND KEYNOTE LECTURES (1) (2) (Saturday, 25 October, 10:00-11:50, 10F-Keizo Saji Memorial Hall)
Kiyokazu Washida, President of Osaka University (10:00-10:15) Opening Speech: 'Voices in Design'
Shoji Ekuan, GK Design Group Inc. (10:20-11:00) Keynote Lecture (1): 'Where is design heading for?'
Kazuo Kawasaki, Osaka University (11:10-11:50) Keynote Lecture (2): 'Philosophy of Peace-Keeping Design'

THEME I : ETYMOLOGY AND TERMINOLOGY OF DESIGN
Session I-A: <i>Latin Words for Design</i> (Saturday, 25 October, 13:40-15:10, 5F-Multipurpose Area 4)
Hidehiro Ikegami, session chair Design and Perspective: The Contribution of Leonardo da Vinci
Eduardo Alberto Vieira de Meireles Côte-Real Francisco d'Hollanda's "Ciencia do Desenho"
Helena Barbosa, Anna Calvera, Vasco Branco The different names for 'Design' and their respective meanings in Portugal (18 th -20 th centuries)
Session I-B: <i>European Words for Design</i> (Saturday, 25 October, 15:20-16:50, 5F-Multipurpose Area 4)
Artemis Yagou, session chair Greek Words for Creation: Reflections on Design Discourse in the Context of the Greek Language
Susana Martins Oliveira and Eduardo Alberto Vieira de Meireles Côte-Real Speak Design, Read Design, Design Design; the meaning of the word in three different dictionaries from the 1600s to the early 1880s
Yuko Takeuchi

Ornament and Design: Some Interrelated Ideas of Christopher Dresser
Session I-C: <i>Isho and some other Japanese equivalents for Design</i> (Sunday, 26 October, 9:00-10:30, 5F-Multipurpose Area 4)
Takao Ota, session chair A Source of Display Design in Japan – Focusing on Two Japanese Words, ‘Shitsurai’ and ‘Kazari’
Takayuki Higuchi The Japanese word ‘isho’ as an equivalent for ‘design’ in the Meiji Era
Yoshinori Amagai The First Japanese Design Regulations (Isho Jorei) and the Idea of Applying Art to Industry in Japan in the 1880s
Session I-D: <i>Words for Modern Design</i> (Sunday, 26 October, 10:50-12:20, 5F-Multipurpose Area 4)
Junko Miki, session chair Notion of <i>Bild</i> in Educational Approach at the <i>Bauhaus</i> Preliminary Course
Keisuke Takayasu The Concept of <i>Gestaltung</i> in Design Education
Yasuko Suga Invention of ‘Modern’ Japonisme: national representation through ‘Sangyo Kogei’
Session I-E: <i>Society, Design, and its Words</i> (Sunday, 26 October, 13:30-15:00, 5F-Multipurpose Area 4)
Alfonso Ruiz Rallo, session chair Design after postmodernism: a tool to understand the situation of design in hypermodern era
Gabriele Oropallo Making Form, Making Sense: The Debate on the Social Role of Design at the 1954 Milan Triennial
Yuriko Inoue ‘Dessin’ vs. Design

THEME II DESIGN MUSEUM AND MUSEUM DESIGN
Session II-A: <i>Design Museum and Japanese Culture</i> (Saturday, 25 October, 13:40-15:10, 5F-Multipurpose Area 3)
Yuko Ikeda, session chair Forgotten treasure for design sources – Japanese stencil paper collection at the <i>Kunstgewerbemuseum</i> , Dresden
Nobuo Tsuchiya On the Design Gallery Ginza-Matsuya from the Viewpoint of Art Environment Support
Tsutomu Yamauchi and Shiro Ina Professional Designers Activities for the Creation of a Design Museum in Japan
Session II-B: <i>Museum and Industry</i> (Saturday, 25 October, 15:20-16:50, 5F-Multipurpose Area 3)
Noriko Yoshimura, session chair Corporate Museums in “the Kingdom of Production,” Aichi, Japan
Fiorella Bulegato

Company Museums in Italy
Session II-C: <i>Changing Design Museum</i> (Sunday, 26 October, 9:00-10:30, 5F-Multipurpose Area 3)
Christina Zetterlund, session chair Design, Art and history writing at the Design Museum
Mariana Salgado and Jukka Savolainen et al. Co-designing Participatory Practices around a Design Museum Exhibition
Elena Brigi Design museums: from a museum of “objects” to one of “ideas”
Session II-D: <i>Design and Museum</i> (Sunday, 26 October, 10:50-12:20, 5F-Multipurpose Area 3)
Javier Gimeno Martínez, session chair Deciding the Cultural Status of Craft and Design: The Design Museum as Defining Agent for the Term “Design”
Theresa Beco De Lobo The Design Museums towards the Future
Anne James Experience Informing Exhibition: The Essential Nature of Sensory Perception in Design
Session II-E: <i>Museum Design and Museology</i> (Sunday, 26 October, 13:30-15:00, 5F-Multipurpose Area 3)
Paul Atkinson, session chair Computer History – Vaporware and the problems of museology
Yuko Sakurama Museum Design in Gae Aulenti: For collection room of modern art museum
Maddalena Dalla Mura Another Art Museum or a New Museum: What Lies Beyond?

THEME III: PERMANENT AND TRANCIENT: PAST, PRESENT, AND FUTURE
Session III-A: <i>Japanese Design and the West</i> (Saturday, 25 October, 13:40-15:10, 7F-Seminar Room)
Ricard Bru, session chair Japanese influence on engraved glasses in Barcelona (1870-1900)
Daiki Amanai A Dispute over Ornament in Architecture: Japanese Perception of Modernism in the 1920s
Anna Basham From Victorian curiosity to modernist icon: an inter-war forgotten history of inspiration from the <i>tokonoma</i> on the British modern interior
Session III-B: <i>Anonymous Objects</i> (Saturday, 25 October, 15:20-16:50, 7F-Seminar Room)

Shinsuke Omoya, session chair Small Electric Cooking Appliances in the U.S.: Their Development from the 1920s to the 1950s
Gavin O'Brien Restraining myths: the case for number 8 wire in Design History
Alberto Bassi Anonymous Design. Incognito everyday objects and projects
Session III-C: <i>Modern Design and its Space</i> (Sunday, 26 October, 9:00-10:30, 7F-Seminar Room)
Toshino Iguchi, session chair Czechoslovak Avant-garde Design as Construction: The Czechoslovak Pavilion at the International Exhibition of Art and Technology in Modern Life, Paris, 1937
Mercè Vidal Industrial design versus traditional culture. The Mediterranean myth as a modernist model based on Le Corbusier's proposals and influence in Spain
Jilly Traganou Spatial Design Studies: Inscribing Architecture in Design Studies
Session III-D: <i>Sense of the Past, Present, and Future</i> (Sunday, 26 October, 10:50-12:20, 7F-Seminar Room)
Anna Calvera and Josep M. Monguet, session chair The Barcelona Design System; Understanding the Past from the Present and Gathering Opinions Concerning the Future
Noel Waite Precedent: Connecting the past and present to create plausible design futures
Keiko Hashimoto Childhood Sensitivity in Shiro Kuramata's <i>Furniture in Irregular Forms</i> , 1970
Session III-E: <i>Art and Design</i> (Sunday, 26 October, 13:30-15:00, 7F-Seminar Room)
Chiaki Yokoyama, session chair Whitechapel Art Gallery: The Meaning of Art in the East End of London
Kyoko Okubo The Meaning of Arabesque in Matisse's Work
Theresa Neurohr and Damiano Pasini Principles of Optimum structures in the sculptures of Naum Gabo
Session III-F: <i>Design and Culture</i> (Sunday, 26 October, 13:30-15:00, 7F-Lecture Room 3)
Carlota Sen Lafuente, session chair Theorizing the design alchemist: Isidro Ferrer
Heidi Maarit Pietarinen I DRESS THE INTERIOR OF A HOUSE INSTEAD OF PEOPLE, A Finnish Textile Designer Marjatta Metsovaara
Dulce Castro Val Popular Image as a Cultural Resistance Element

Session III-G: <i>Cultural Identities</i> (Sunday, 26 October, 15:20-16:50, 7F-Seminar Room)
Ayana Kobayashi, session chair Meanings of Wood in Contemporary Finnish Wooden Architecture
Dolores Tapias and Carles Ameller Designing and Constructing the Image of the City
Valdez Vargaz Celso CENTER-PERIPHERY DIALECTICS The Space where Identities are Built

THEME IV: DECOLONIZING DESIGN HISTORY: MODERN/POST-MODERN FOR PERIPHERY
Session IV-A: <i>Post-Colonial Scenes</i> (Saturday, 25 October, 13:40-15:10, 3F-Multipurpose Area 2)
Suzette Worden, session chair Materials, trade and Empire: Australian wool research, marketing and promotion in the twentieth century
Alberto Rosa Sierra Historical development of materials for tequila bottle manufacture
Lisa Farooque Constructing the Hybrid post-Colonial Object
Session IV-B: <i>Visions of Periphery</i> (Saturday, 25 October, 15:20-16:50, 3F-Multipurpose Area 2)
Frédéric Frank, session chair Re-visions of the Periphery: Compared Writings of Three European Architects
Erika Cortés Social movements' pattern for transforming actual cities at periphery
Silvia García González, Dolores Dopico, Cristina Varela The Creation of a Distinctive Image in Fashion Design: A Case Study from Spain's Periphery
Session IV-C: <i>National Identity and Modern Design</i> (Sunday, 26 October, 9:00-10:30, 3F-Multipurpose Area 2)
Guy Podoler, session chair Designing History, defining Identity: The Case of South Korea's Independence Hall
Tomoko Hata National Identity and Design Strategy – Japan and China in the 19 th century
Soranart Sinuraibhan The Absence of Thai – Modern architecture: Read through the Demolition of Building 9 at Panabhandhu School in Bangkok
Session IV-D: <i>Modernization or Westernization</i> (Sunday, 26 October, 10:50-12:20, 3F-Multipurpose Area 2)
Yukie Takeuchi, session chair Embracing the new term "Layout": From Zuan-ka to Layout-man

Development of new advertisement production in Japan in the 1920s and 1930s
Takuya Kida Industrial Art Institute (IAI) and Designers from the Occident: Planting the Idea of Modern Design in Japan in the 1930s-1940s
Sheila Gies Brazilian Fashion Design: Outreaching Colonization
Session IV-E: <i>Local and Universal Dialectics</i> (Sunday, 26 October, 13:30-15:00, 3F-Multipurpose Area 2)
Krista Kodres, session chair Does the location of a culture matter? Observations from the perspective of Estonia
Simon Downs Culture/Feedback
Wessie Ling The Fashion Week Contest and its Dialectics
Session IV-F: <i>Craft and Modernization of Japan</i> (Sunday, 26 October, 15:20-16:50, 3F-Multipurpose Area 2)
Sadahiro Suzuki, session chair Historiography of the <i>Mingei</i> Movement: Conditions and Possibilities
Yuko Kikuchi Decentring the master narrative of art and creating narratives of craft and craft history
Kazusa Kumakura Modern Celebration: The Fate of the New Year's Flyer

THEME V: NATURE AND MANMADE
Session V-A: <i>Designing the Body</i> (Saturday, 25 October, 13:40-15:10, 9F-Conference Room 1)
Adriana Ionascu, session chair Altering Physical Functions: the Design of the Body
Toshikatsu Funayama, Takashi Ogawa, Ichiro Kanaya, Kazuo Kawasaki A basic discussion to introduce design methodology to the development of the artificial heart
Valentina Croci 'Technologized Body' and Wearable Technologies: New Frontiers for Design
Session V-B: <i>Body and Human Identity</i> (Saturday, 25 October, 15:20-16:50, 9F-Conference Room 1)
Davide Fornari, session chair Perception of Humanoid artifacts: Cultural Differences
Sarah Teasley Design, Technology and the Post-Human: Messages from the Catwalk and the Factory Floor
Elizabeth Damour Denying the Frontiers: Is this an Ultimate Challenge for Human Identity?

Session V-C: <i>Visible/Invisible Frontiers of Design</i> (Sunday, 26 October, 9:00-10:30, 9F-Conference Room 1)
Francisco Javier González Madariaga, session chair New building materials as a challenge for designers
John-Henry Martin The myth of three colours and the idol of the scientific
Eduardo Huerta, José Ma. Monguet, Marco Ferruzca Rethinking design research: what some Latin-American designers think
Session V-D: <i>Recognition of Design</i> (Sunday, 26 October, 10:50-12:20, 9F-Conference Room 1)
Haruko Takahashi, session chair An Image Database of fashion, Dress, and Behavior from the <i>Meiji</i> to early <i>Showa</i> Periods (1868-1945) in Japan
Takashi Ogawa, Toshikatsu Hunayama, Ichiro Kanaya, Kazuo Kawasaki Medical Design and Design Awards
Juan Wang Differences in Architectural Culture between Ancient China and the Occident

THEME VI: NARATIVE STRATEGIES IN DESIGN HISTORY
VI-A: <i>National Strategies of Design</i> (Saturday, 25 October, 13:40-15:10, 3F-Multipurpose Area 1)
Lasse Brunnström, session chair Redefining Swedish Design History
Livia Lazzaro-Rezende The raw and the manufactured: a discussion of Brazilian national identity projected in international exhibitions (1862-67)
Mercedes Hernández The Mexican Style
Session VI-B: <i>Moral and Religious Strategies</i> (Saturday, 25 October, 15:20-16:50, 3F-Multipurpose Area 1)
Ariyuki Kondo, session chair George Edmund Street's Patriotic-Religious Vision: The Narrative Strategy of a Gothic Revivalist
Leong Koon Chan Envisioning National Identity: Graphic Design and Nation-building in Singapore
Raymond Donovan and Leong Koon Chan Socio-Graphic Narratives of Australian HIV/AIDS Campaigns
Session VI-C: <i>The Past and Present Narratives</i> (Sunday, 26 October, 9:00-10:30, 3F-Multipurpose Area 1)
Nele Bernheim, session chair The 'Recent History' and the 'Past History' of Belgian Avant-garde Fashion: From <i>Antwerp Six</i> to <i>Couture Norine</i>

Yoshie Itani
Directions in 21 st Century Tableware Design
Seçil Şatir and Ömür Tufan
“Eser-i İstanbul” Porcelain once in the Daily Life of Istanbul
Session VI-D: <i>Frames of Artifacts</i> (Sunday, 26 October, 10:50-12:20, 3F-Multipurpose Area 1)
Mikiko Tsunemi, session chair
Modern Design and the <i>Mingei</i> Movement in Japan – Yoko Kuwasawa’s Fashion Design
Yoshiko Kawaguchi
On the ‘Frame of Behaviour’ in the Domestic Interior Decoration by Charles Rennie Mackintosh
Leslie Atzmon
Forms of Persuasion: Visual Rhetoric and the Special Eloquence of Design Artifacts
Session VI-E: <i>Aesthetic Ideas in Design</i> (Sunday, 26 October, 13:30-15:00, 3F-Multipurpose Area 1)
Jaime Francisco Gómez Gómez, session chair
An approach to the figure and aesthetic ideas of Alexander J. Kostellow
Takayuki Ijuin
The Cinematic Quality in Machines and Architecture; Focus on Masakazu Nakai’s Film Theory and Le Corbusier’s “Eyes Which Do Not See”
Chung-Sheng Chao and Ping-Yu Tsai
Application of the Water-court Borrowed-view Design Technique in Tadao Ando’s Cultural Architectural Works
Session VI-F: <i>Speaking Typography</i> (Sunday, 26 October, 13:30-15:00, 9F-Conference Room1)
Chae Ho Lee, session chair
Speaking to the Present: Hawaiian Language Newspapers
HyunGuk Ryu
Hangul Typewriter as an Interface Machine –The Typeface Design Accompanied by Development of the Hangul Typewriter
Jesse O’Neill
<i>Asses in the piggery</i> : shifting perspectives on the construction of typographic histories
Session VI-G: <i>Real and Virtual Mediators</i> (Sunday, 26 October, 15:20-16:50, 3F-Multipurpose Area 1)
Mercedes Valdivieso, session chair
<i>Frau Bauhaus</i> : Ise Gropius and her role in the Bauhaus
Mariko Kaname
The Historical Significance of the Omega Workshops: Characterization of a “Vanishing Mediator”
Zélia Simões and Maria João Durão
Contemporary Architecture: Real and Virtual Narratives
VI-H: <i>Ideas and Narratives of History</i> (Sunday, 26 October, 15:20-16:50, 9F-Conference Room 1)
Izumi Kuroishi, session chair
Wajiro Kon’s ideas of architectural history from the 1920’s to the 1940’s in Japan

Polly Cantlon
The Design of Design History
Toni Ryynänen and Anna Valtonen
Arguments of Profitability - Economic Narratives as Justification for Industrial Design
Session VI-I: <i>New Directions in Design and its Historical Studies</i> (Sunday, 26 October, 15:20-16:50, 5F-Multipurpose Area 4)
Héctor Flores Magón, session chair
New Ways for Design History
Lopez Edgardo
From industrial design (engineering) to graphic design (communications).
Methods for the product development of visual communication

THEME VII: COMMUNICATION DESIGN IN EDUCATION, RESEARCH, AND PRACTICE
VII-A: <i>Sustainable Design and Sustainable Image</i> (Sunday, 26 October, 9:00-10:30, 7F-Lecture Room 2)
Tate Ragland, session chair
Seeing Green: How the Visual Representation of Sustainability Shapes Consumer Perception
Jenny Tsai
Communication by Metaphors: creating the Look of Sustainable Manufacturing Beyond Mimesis
NyunLing Pan and KwaiMing Lam
From Design Participation to Social Sustainability – SoUk Heritage Preservation Model
VII-B: <i>Contemporary Design and the East</i> (Sunday, 26 October, 9:00-10:30, 7F-Lecture Room 3)
Sangmi Kim, session chair
The Appropriation of Image and Visual Communication: Duplicate meaning of Yokoo Tadanori's early posters
Jianhua Yang
A Comparative Study on Chinese and South Korean Post-80's Poster Design Aesthetics
Maria João Durão
Drawing on the ephemeral: a process involving the creation of a Space designer-designed Birdhouse Osaka
VII-C: <i>Design for Social Communication</i> (Sunday, 26 October, 10:50-12:20, 7F-Lecture Room 2)
Kyoichi Shimasaki, session chair
Significance of Social Welfare Activities for Design Education – On exchange between intellectually challenged children and design students
Toshimi Nakanishi
New Design of the Communication Model in Medical Dispute Resolution

Louise Kolff
Narratives of body representations in HIV/AIDS campaigns
VII-D: <i>Communication and Mutation</i> (Sunday, 26 October, 10:50-12:20, 7F-Lecture Room 3)
Jason Griffiths, session chair
Mutation of the AIGA – Narratives of objectivity
Gustavo Victor Casillas Lavin, Maria Luisa Pérez Guerrero, José María Monguet Fierro
Poetic function of design, communication and interactivity
Youzhu Huang
The Visual Spirit and Communication of Urban Public Art
VII-E: <i>New Communication and Education</i> (Sunday, 26 October, 13:30-15:00, 7F-Lecture Room 2)
Marco Ferruzca, Eduardo Huerta, Joaquín Fernández, José Ma. Monguet, session chair
Difficulties identified in a design e-learning program
Kyoko Ito, Tetsu Kubota, Ryosuke Shimizu
Proposal of a “senselogue” Literacy Education/training Method
Mie Nakatani, Hirokazu Kato, Shogo Nishida
Toward Communication in the Park
VII-F: <i>Communication with Nature</i> (Sunday, 26 October, 15:20-16:50, 7F-Lecture Room 2)
Miguel Angel Jiménez M. , session chair
AN APPROACH TO NATURE: Basic Design Education at the Universidad de Guadalajara
Midori Ishihara
Food designs our Communication
Chokeanand Bussracumpakorn and Daichi Iwase
Anti Separation Performance of Solid Waste at Source: The Top-down Communication Design Approach Problem in the School Community in Thailand

KEYNOTE LECTURES (3) (4) AND CONFERENCE DINNER (25 October)
Jonathan M. Woodham (Saturday, 25 October, 17:10-17:50, 7F-Seminar Room)
Keynote Lecture (3): Design Peripheries, Hidden Histories and the Cartography of Design
Oscar Salinas Flores (Saturday, 25 October, 18:00-18:40, 7F-Seminar Room)
Keynote Lecture (4): THE STRENGTH OF A CULTURE AND ITS IMPACT ON DESIGN, Mexico’s History and its Influence on the Great Masters
Blessing by the <i>Fukumusume</i> (Saturday, 25 October, 18:45-18:55, 7F-Seminar Room) (19:00-, 9F-Reception Hall entrance)
CONFERENCE DINNER (optional) / (Saturday, 25 October, 19.00-21.00, 9F-Reception Hall)
Greeting: Satoshi Kinsui, Osaka University CSCD director
Announcement of the ICDHS 2010

'FASHION AND ARCHITECTURE' Workshop and Music (18:30-21:00, Sunday, 26 October) KNS*
Dolores Dopico, Panelist (Spain)
Elisabeth Damour, Panelist (France)
Nele Bernheim, Panelist (Belgium)
Haruko Takahashi, Panelist (Japan)
Noriko Yoshimura, Panelist (Japan)
Mutsumi Tsuzaki, Panelist and Marimbist (Japan)
Takashi Tanimoto, Artist
Kaori Imada, Marimbist
Haruhiko Fujita, workshop master

***Keihan Naniwabashi Station**: A new station of a newly (October 19) opened line of the Keihan Electric Railway Co. Ltd., one of our sponsors. After our afternoon sessions of October 26th, we walk approx. 1,400 m (20 minutes) or take the newly opened Keihan line (2 stops) to the new station. Entrance for the station designed by Tadao Ando is now completed. In a gallery of the station, LABo CAFÉ, a *kimono* collection of Mutsumi Tsuzaki, will be on show after 1 PM of October 26th.

CLOSING Monday, 27 October, 09:30-11:30, 10F-Keizo Saji Memorial Hall, ONC
Conclusion
Announcement of the ICDHS 2012
Closing
POST CONFERENCE ACTIVITIES 27-29 October (Monday-Wednesday) Kyoto and Nara
27 October (After Closing event)
Move to Kyoto; Take any <i>Keihan Kyuko</i> (Express) to Keihan Sanjo. 3 hotels in Kyoto are all within walking distance.
Japanese Dinner in Kyoto, at <i>Ganko Takasegawa Nijo-en</i> (19:00-21:00) 35 euro (5,600 JPY) pre-paid at Osaka registration desk
28 October (Exhibition and Kyoto tours) See also Tour information on the ICDHS2008OSAKA website
Exhibition tour "ARTS & CRAFTS: From William Morris to the <i>Mingei</i> Movement," meeting at the Kyoto National Museum of Modern Art at 09:15
Kyoto tours; north/south tour, leaving from the Kyoto National Museum of Modern Art at 12:30, ending at JR Kyoto Station around 18:00
29 October (Nara tour) See also Tour information on the ICDHS2008OSAKA website
Nara tour. Meeting at the JR Kyoto Station or <i>Kintetsu Namba</i> (Osaka) Station at 08:30, ending around 18:00 at the Nara National Museum. Both Nara-Namba(Osaka) and Nara-Kyoto are approx. 35-40 minutes by <i>Kintetsu Tokkyu</i> (Special Express) or <i>Kintetsu Kyuko</i> (Express)

<p>Kintetsu Kyoto (09:00) - Kintetsu Nara (9:36) Special Express</p> <p>Kintetsu Namba (09:04) - Kintetsu Nara (9:42) Express</p>
<p>Kintetsu Nara (18:30) - Kintetsu Kyoto (19:06) Special Express</p> <p>Kintetsu Nara (18:31) - Kintetsu Namba (19:13) Express</p> <p>(Most participants will be guided to take these trains back to Kyoto/Osaka. Those who would like to take earlier/later trains will get necessary information.)</p>
<p>END OF THE WHOLE PROGRAM</p>