

**LEGOified: building blocks as media, edited by Nicholas Taylor & Chris Ingraham**

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**FOREWORD | An Imaginary System [author's final version]**

Seth Giddings

LEGO occupies a unique place within toy, play, and media culture. A hugely successful product line that is universally recognized, in over half a century it has weathered the turbulent seas of commercial children's culture—the fads and crazes, the rise of competitors for attention, at first broadcast media, then the encroachment of digital culture—first computer games, then networked social media. Along the way, the company's strategy picked up on the transmedial trajectory and occupied it emphatically. The characteristic studs, patented in the 1950s, are instantly recognizable, as much a sign or logo as they are a technical feature of the construction toy. Since the 1970s, LEGO minifigures have risen to prominence in a cluttered cultural economy of attention, intellectual property as familiar as the Disney Princesses or the Super Mario pantheon. Studs and minifigures are found now in films, TV animation, videogames, their chunky modularity endlessly flexible across franchises and storyworlds as well as bedroom and living room floors.

The LEGO Group's own self-presentation and publicity, its longevity, and of course the toy's distinct design and material characteristics have fed into a persistent sense of the toy as more than just another plastic product. Though appeals to and critiques of LEGO (and its changes over recent decades) are varied and often contradictory, they are near-universally underpinned by assumptions that LEGO is (or was) a unique toy or system, distinct in its flexibility and open-endedness in play. LEGO is scaffolded by a popular imaginary, of an educational or imaginative toy that promotes creativity in ways closed off in other toys. It has

— like Disney, that other persistent staple of commodified children’s culture in the late twentieth century — a set of moral expectations. Both have been entrusted with the imaginations of generations of children, wholesome fantasy from Disney, educative fun from LEGO, each exploiting the assumption of an extra-commercial responsibility for children’s development. Like Disney, LEGO has had to carefully negotiate these expectations of their contribution to an idealized children’s culture with hard-nosed industrial strategies of licensing, transmedial franchises, and extensive merchandising in a rapidly changing technocultural economy. From the late twentieth century, both media empires have embraced and hypercharged transmedial tactics, breaking down the walls of their ethico-symbolic storyworlds, abandoning corporate-cosmological purism for the cross-pollination of proprietorial supersystems.

Though changes to the packaging and media positioning of the toy, and its spreading out into other media and digital forms, have generated popular hostility and journalistic claims of betrayal, LEGO (or rather the LEGO System) has over the decades gathered about itself an imaginary: a set of implicit and explicit concepts of its transcendence over other ordinary toys and children’s media. It is an imaginary that privileges an idealized imagination: the design and dissemination of LEGO, its proponents assert, engenders creative, open-ended play; its flexibility drives productive engagement in the moment of play, and the development of cognitive skills and creative aptitudes over time. Its near mythic status as an ur-toy has been consistently invoked as an ideal from which every incremental change in design and marketing since the 1950s has been perceived as a fall from grace. The remarkable and promiscuous franchising of recent years, culminating in LEGO Dimensions games mixing up characters from *Lord of the Rings*, *Batman*, etc., back to the introduction of LEGO Friends targeted at girls, to themed sets with specialized bricks, the inclusion of instructions, back even to the illustration of possible constructions on the lid of early boxes in

the 1960s... Generations of LEGO critics have and continue to hark back to a prelapsarian idyll (usually of their own childhood) when the toy was “more creative.”

Whilst the cultural, representational, ideological and economic assumptions that feed and are fed by imaginaries can be uncovered and subject to critique, imaginaries are no mere whimsy, but obdurate and operational phenomena — they have their own reality and agency. LEGO’s privileged status is nothing if not a technological imaginary, predicated on and sustained by the technics of the toy’s design and manufacture and the techniques of its use. Whilst all media entertainment and play objects have a material basis but circulate through intangible fields of signification, discourse, and imaginative engagement, there is something particularly salient about the technical and material characteristics of LEGO and its semiotic and symbolic operations, something key to grasping its particular appeal, and the claims made for it. Unlike Disney, for instance, all LEGO products — plastic bricks, digital worlds, animated characters — are characterized, and linked, by the tube-and-stud technology and style of the LEGO System of Play. It requires specific materials, thermoplastic that affords the durability and hardness needed, and very precise engineering to provide the robust and satisfying click between bricks. It is this system on which LEGO rhetoric is built and with which play is undertaken. The products’ famed interoperability and modularity lends a coherence across the technics of platforms and the symbolic regimes of themes and franchises that is simultaneously and inseparably material-discursive, engendering both visual and tactile aesthetics and technical infrastructure. It also acts as emblem and metonym for the LEGO corporate ethos. According to the LEGO Foundation, the educational and charitable arm of the LEGO Group, play should be open, free, and imaginative, and as such is a vital force for good in the world, building children’s imaginations and confidence, hands-on dexterity, and constructing future entrepreneurialism.

For both LEGO critics and evangelists the LEGO imaginary is facilitated by the System of Play but seems magically unconstrained by it. The System is open and flexible, its engineering and design a neutral conduit through which imagination and creativity flow into open-ended play. If the playful imagination is impeded in any way, the LEGO purists insist, it is by the franchises, themes and mediatization of the toys, the consumerist and gendered scenarios of LEGO Friends for instance, or the commercial tie-ins of LEGO *Batman*, *Star Wars*, and all the rest. Themes, characters, scenarios as presented on the packaging and instructions of LEGO sets interfere with or negate the System's infinite plasticities of play. This position is open to challenge by LEGO anthropologists and ethologists in two main ways, each of which requires a critical and descriptive attention to the materiality of the System along with its symbolic and narrative instantiations. Each suggests a more complex relationship between technology, media images and imaginative play.

Firstly, in their attention to themes, instructions, franchising and narrative settings, LEGO critics persistently ignore the widespread, near-universal technics of everyday LEGO play in which discrete sets are broken down, added to the child or family's box of existing bricks, and from which new drama, action, and exposition are engineered. In this sense the System of Play lives up to its corporate billing and popular image as an imaginative and open system. The illustrated packaging, instructions and specialized bricks of course invite the construction of particular models and suggest modes of technical or imaginative play, but the capability to make different models or to mix up the bricks with others underpins much if not most everyday play, and has done so for generations. The LEGO pessimists would only have to spend a few minutes watching children rummaging in the box, clicking together and talking into existence a phantasmagorical world to realize their fears are unfounded.

Secondly, however, LEGO as a "materially digital" medium, to use the phrasing offered by Kate Maddalena's chapter in this volume, has its distinct material characteristics

and possibilities. Its technics do not so much “free” the playful imagination as channel or articulate it. The System scaffolds a particular kind of open-ended play, the material scope of the studs and tubes is finite and hence presses in and extends imaginative processes in distinct, albeit nonlinear ways. Whilst the paracosmic stories and actions fabricated by playing children are infinite in their detail and variety, the broad forms and archetypes through which they are constructed and enacted are extremely limited, rarely departing from buildings, townscapes, vehicles, the occasional robot. Infinite poesis at the micro-semiotic level, rigid determination at the meso-mechanical. In this regard, recognition of LEGO’s origins in the history of toys, and particularly building blocks and architectural toys, is salient. The first construction toys could make solid walls and little else. A simple mechanic of stacking, an engineering rooted in pre-industrial construction, then modelled and commodified in wooden block toy sets in the eighteenth century. Even the later advances of the LEGO Technic sets tend towards the construction of discrete and rectilinear objects rather than, say, the open frameworks and spans of Meccano and K’nex. Thus LEGO’s underlying architectonic structure has its own technocultural history and ideological tendencies: it was developed in a crowded market of building block and construction toys that developed over a hundred years. Whilst recent LEGO evangelism concentrates on the incursion of narrative and symbolic suggestions for construction and play, early concerns for the erosion of LEGO imagination were predicated on its status as an architectonic toy. This early engineering aspect of the LEGO imaginary has by and large disappeared, though residual traces can be spotted in more educational products such as the various robotics sets. Along with its early competitors in the pre-mediatized construction toy market, LEGO was animated by an imaginary that extolled problem-solving and mechanical operations as its prime motive for play. A mode of imaginative thinking that explored physical and mechanical relationships, structures and forces, systems and possibilities. The invitation to play was “how could we

span this gap with a bridge?” or “what arrangement of bricks best support a tall building?”. If in the (later) conjuring of dynamic or dream-like microworlds with toys, children are playing *as-if* the toys were streets, people, adventures, then the player exercising their engineering-imagination with the construction toy asks *what if?*, *what-would-happen-if?* an extra floor were added to an experimental building?, *what-if* a particular set of gear ratios were connected?, and so on.

An archaeology of LEGO’s engineering-play might follow lines of material and imaginary descent back to the building toys of the interwar Bauhaus or Froebel’s “gifts” in the early nineteenth century. These elegant objects offered an aesthetic and kinaesthetic system, a pedagogy of abstract combination, a prosthetic and haptic extension of imaginative processes, driven by the material potential of the blocks to combine and suggest, rather than any directly instrumental training for actual construction methods. An aesthetic lineage has been traced between the “gifts” and the ethos and style of modernist designers and architects who played with them in their infancy. And the modularity of LEGO is of course intertwined with modernist design throughout the twentieth century. Less clear, but just as significant, is the persistence of construction toys to inculcate the imaginative processes of systems-thinking, of playing with objects, their capacities and their relationships to address capacities and relationships in the abstract. Substructures of scientific enquiry, hands-on engineering, the poesis of shape and space professionalized by sculptors and architects. In more ambivalent celebrations, a LEGO imaginary is the baseplate for ways of thinking about (and being trained for, from an early age) a modular and prefabricated modernity, model-building for technocracy, even a plan for a plug-and-play neoliberal economics of fragmentation and outsourcing: break the model apart and click it back together.

This engineering dimension of the LEGO imaginary has largely disappeared in the marketing of and response to the standard bricks and sets, though it persists in the more

specialized robotic and educational lines. It is evident however, in a markedly simulacral form, in playful and pedagogical software more widely, from *SimCity* to object-oriented and didactic systems such as StarLogo and Scratch. In the terminology offered by this volume, we might think of these as LEGOified micro-cities and microworlds, albeit in non-LEGO form: modelled and snapped together, modular, colorful and systematic, abstract yet hands-on. These are abstract yet fundamentally instrumental modes of cognitive plasticity that aim to grasp and link dynamic and complex relationships rather than modelling in detail actual world systems. It surfaces too, transformed and mutated, in LEGO videogames, which demand of their players an imaginative engagement that is at least as processual as it is narrative: the cognitive mapping of toyetic architectonics, the what-if imaginative acts of construction and puzzle solving, the manipulation of bricks that is at once familiar from actual toy play and utterly different in its virtual animation.

While any clear distinction between the symbolic-imagination and the engineering-imagination is only evident in the rhetoric, actual LEGO play is always conducted through a shuffling of them both. What-if technics are fully immanent to actual building with the toy, a phenomenological and tactile inevitability: any construction with the bricks necessitates working within the physical parameters of the System of Play. My own ethnographic work on LEGO play demonstrates the interplay between technical construction and the phantasmagorical in which the former is by necessity an imaginative process of mechanical experimentation and testing. Dragons, castles and futuristic vehicles are fashioned through the selection and speaking of elements technically defined: dimensions counted out in studs (2x6s, 8x1s) and mechanically specific components (hinges, axles). Indeed, the blurring of technical and symbolic imagination is central to one particular mode of LEGO play for children and adults that is surprisingly absent from commentaries and claims for the toy, or held implicitly accountable for the death of LEGO imaginative play: following the

instructions of a playset to create the model as presented on the set's packaging. Making a LEGO model is a significant technical and imaginative achievement demanding dexterity, hands-on technicity, and the ability to follow sequential directions, interpreting wordless two-dimensional diagrams into three-dimensional constructions. What are the pleasures in this play? Something like puzzle-solving in its fiddly three-dimensional parameters, a hands-on engagement and appreciation of often ingenious and witty designs, aesthetic pleasure in the emergence of a scene or vehicle from a pile of modular abstract elements, maybe sometimes the realizing and appreciation of the beautiful engineering and plastic imagination of the designers. We are closer here to kit constructions of Airfix, a UK-based scale model maker and another genealogical artifact of construction play. The technically adept and obedient manufacture required here, and its performative and exhibitionary pleasures, resonate with much adult play with LEGO. Whilst for adult constructors the immersive and phantasmagorical mindset of early childhood is now beyond reach, expert, experimental and artistic LEGO practices that demand a clear design and coherent process are some substitute.

None of these imaginative processes and imaginary constructions can be reduced entirely to the material and mechanic character of LEGO bricks and the System of Play, but neither would they be possible without it. The technical operation of the tubes and studs, and the commercial decision to standardize and universalize them, clicks everything else together, including in digital and virtual domains. In children's play there are no rigid boundaries between actual and virtual LEGO, or between LEGO and not-LEGO. The flow between actual plastic construction and digital manipulation recently systematized in LEGO Dimensions is only an echo of vernacular everyday activities that were evident in the first moments of children's play in and around LEGO-themed videogames. Characters and action transferred in the flow of play, kinaesthetic and agential engagement transduced, metamorphosed as hands are separated from and connected to toys by the keyboard or

joypad. The characters, vehicles and structures brought to life by the program rather than immediately by the embodied and tactile imagination. In the games, the acrylic of the minifigures flexes, the decalced faces animate, the studs are a proprietorial residue — their grip redundant in an environment free of actual gravity and friction. As I have noted, there is a trace of the engineering-imagination in LEGO's highly mediated and narrative-driven virtual worlds: puzzles to be solved, spaces to map and traverse, explicit instructions and implicit yet rigid procedures coded into the gameworld, all pieced together brick by brick.

Or smashed apart in an audio-visual spectacle — an intangible transduction of the flip-side of creative play with blocks: physical destruction and symbolic violence, a phantasmagorical “dark play” built into LEGO but repressed in its bright rhetoric.

In all the above, the material and the semiotic, play and engineering, the fabulatory and the machinic, the tactile and the simulacral are inseparable, intertwined. The persistence of the system of play as a technological phenomenon secures the LEGO legacy of flexible creativity as well as its new modular extensions through transmediality and hypermediality. Engineering-imagination, free-play and phantasmagorical construction overlap and co-constitute each other, facilitated by the System of Play but unlike the System and its acrylic medium they are profoundly non-modular. LEGO can't be understood without an appeal to imagination and a critical grasp of the imaginary, but “imagination” itself is not the settled positivist term of LEGO's own myth-making; it is itself constructed according to the materials (and immaterials) at hand and the models we wish to make.

The research and analysis in this book charts ways in which the global economic, historical and imaginary LEGOScape is realized, challenged, and transformed in everyday play and creative practice. The authors' “connective ethnography” approach describes the surprising ways in which adult LEGO enthusiasts build, break down, and rebuild the System of Play's material-discursive, haptic-visual, and machinic-imaginative possibilities and

constraints. The book captures small events of everyday playful technics, events that are illuminating in their own right and their own momentary idiosyncracies. But it builds up from this empirical attention with a rigorous theorization of the physical, economic, sensuous, aesthetic and *plastic* character of LEGO play and production. In itself the book is a model or system of the significance of contemporary popular and playful culture as epitomized by LEGO – a colourful posthuman construction that clicks together culture, nature, technology, aesthetics, postdigital media, the embodied, the cognitive, and the virtual.