







***MOIOROIA***

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**SONIA**

# AN ARCHEOLOGY OF SHANZHAI PHONES

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山寨手机考古报告 | Clément Renaud & DISNOVATION.ORG

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The “Made in China” label has become famous for the short-lived existence of its products. Usually despised as an industrial subgenre, it has nevertheless vastly contributed to furnishing and structuring the daily existence of millions. While entire museums have been dedicated to niche practices in arts & crafts or to the prowess of famous designers, one can ask: what will remain of these “Made in China” products in the future? For now the archiving of fast-disappearing artefacts may seem a questionable endeavor compared to the emergency of recycling them. Still, even if these objects fall outside the category of significant inventions or indigenous artifacts, for large chunks of the human population they represent an integral part of their living memories and therefore may be considered for conservation.

*Shanzhai* (山寨) is a derogatory term used in China to qualify objects that are cheaply made, poorly counterfeit or just plain crappy. In a way, *shanzhai* evokes to a Chinese person a similar concept to “Made in China” for a Western one. Originally referring to a “mountainous village,”<sup>1</sup> its association with Shenzhen—the name of the city where the whole “Made in China” industrial relocation began—has certainly helped spread the word. Formerly known for its loose tax regulations and copyright enforcement, the Shenzhen Special Economic Zone (SEZ) was—and somehow still is—China’s original sweatshop. The mountains located on the outskirts of the SEZ have over the years sheltered an incredible amount of small plants specializing primarily in making and assembling toys, clothes and electronics. Over time, they learned to disassemble, recreate and sell these products and devices—often adding some personal touches to branding and design in the process. From this adaptive process hatched a large number of manufacturers specializing in very cheap and inadequate products, that became known across China as the *shanzhai factories*.

Since 2010, the city of Shenzhen has been raising its international profile, propelling its gigantic IT industry to the forefront of the global stage with the presence of industry leaders like Huawei, Tencent or DJI. The *shanzhai* story started to gain momentum in design and academic circles outside China, turning

1 The term was originally popularized in the Chinese classic stories *Outlaws of the Marsh* (水浒传) and is therefore associated with the epic feats of China’s outlaws.



FOR ARCHAEOLOGISTS, FRAGMENTS OF A BIFACE HELP EVOKE PAST REALITIES BY PROVIDING INFORMATION ABOUT THE GESTURES THAT CREATED SUCH AN OBJECT.

the factories into glorious renegades (Keane & Zhao 2012), precursors of iterative product design (Wu and Taniguchi 2012) and manufacturing (Lindtner et al. 2015). As of today, hundreds of publications have discussed this unique phenomenon from design, industrial, entrepreneurial, critical and even fashion perspectives. For the city of Shenzhen, stories of the *shanzhai* factories are kept alive as part of a foundational mythology, even though most plants were forced to close down many years ago by rising land costs or reform campaigns. Many of the original factories were undeclared or just plain illegal. Most factory owners were migrants from other parts of China who relied extensively on informal networks from their villages of origin. Rising costs and competition with larger firms made the release of products harder, leading to less frequent seasonal assembly and a gradual departure of factory workers. As of today, very few original accounts of life in these factories exist. Despite the fashionable tone now represented by the term *shanzhai*, working conditions in these plants were harsh, often making a job at Foxconn a desirable achievement.

While all this history is gradually being replaced by the story of Shenzhen's global technological hub, the *Shanzhai Archeology* project aims to collect and archive the disappearing artifacts produced by these *shanzhai* factories. It is an effort of conservation of outstanding specimens, together with their uses, functions, stories, and areas of circulation, as a way to narrate a larger geopolitical and historical transformation concerning the global lives of manufactured technologies over the past 40 years. Within the myriad of objects available on the market, we chose to focus exclusively on mobile phones, as it is one of the most iconic technologies that has survived through two decades of rapid change and technological trends. To date, we have bought and collected around a hundred phones from diverse sources. The collection has been exhibited numerous times in Europe, where most models were unknown because of border regulations forbidding their circulation. This chapter narrates the whys and hows of the *Shanzhai Archeology* project, from our original intent of collecting to its actual unfolding and reception. We will discuss how our 21st century orientalist cabinet came into existence, and the questions it raised among a European audience.

#### SHANZHAI AND THE WESTERN IMAGINARIES OF TECHNOLOGY

The most interesting thing about a phone shaped like a strawberry or one with its own gas lighter is that, by simply existing, it screams how standardized and boring the Western imaginaries of technology have become.

For archaeologists, fragments of a biface help evoke past realities by providing information about the gestures that created such an object. The shape of a biface evolved from a human hand that dictated a *de facto* form factor (Ingold, 2013). Despite this *de facto* standardization force, its original functions (to cut, to drill, to flatten, etc) have since dispersed, evolving into multitudes of shapes and colors. For the phone, the convergence of all designs towards a black-square-with-rounded-corners can be attributed as much to the shape of the hand and eye than to the organization of production lines and shipping of cardboard boxes.



SHANZHAI PHONES: CARD PHONE, BUDDHA PHONE, POWER BANK PHONE, CIGARETTE PACK PHONE, WOODEN PHONE, STRAWBERRY PHONE, LIGHTER CAR PHONE, GRENADE PHONE, IPHONE CASE PHONE, SKELETON PHONE, LIGHTER ZIPPO PHONE, PRISONER PHONE, TOY PHONE, RAZOR PHONE, CAR PHONE, SOUND SYSTEM PHONE.

More than an exploration of the product itself, an archeology of *shanzhai* is an exploration of the design intentions, the conditions of production, the markets and usages. Sometimes compared to an industrial “Galapagos” (Huang 2013), the *shanzhai* industrial ecosystem involved a set of actors that are mostly absent in the usual “tech miracle” narrative of Californian chivalry. The first actors we need to mention here are the workers of the electronic assembly lines who outnumbered in every conceivable manner all other operators in the vast landscape of digital technology. They came by the tens of millions from all corners of rural China to make the Internet possible. The second actor would be the Chinese Communist Party who, by deciding to invest heavily in the IT sector and allow direct, tax-free foreign investment in the SEZs, created the possibility of affordable home computers and mobile phones worldwide. The third and final set of actors encompasses all the owners of the small Chinese factories that took virtually any product idea presented to them and made them a reality—even though these ideas were not always fully functional or durable.

To follow the archeology of *shanzhai* is to reconstruct new technological trajectories that have been largely ignored. Interestingly, the need for Western companies to maintain profit growth and returns on investment acted as a major incentive to standardize components and supply chains for electronics. The major reason why Intel decided to release the standardized ATX form-factor for motherboards was due to the CPU market value decreasing so fast (up to 1.5% per week) that the shipping delay to the US became too costly and needed to be reduced (Chien and Wang 2010). ATX standardization led to a proliferation of small factories that began to follow Intel and other constructors guidelines to produce the required components. Factories began to sell these computers directly to customers and resellers abroad, leading to a surge of no-brand “white box” PCs that people began to install at home in the late 90s. At the same time, the Taiwanese electronic manufacturer Mediatek, inspired by the experience of white box manufacturers, decided to conquer the cell phone market by selling cheap, barebones kit phones directly to smaller factories (Chang 2010). Shipped with a fully functional PCB chipset and complete documentation, the company’s strategy succeeded in capturing the market of manufacturers who started to produce all kind of phones based on these kits.

In many regards, what has been called *shanzhaiji* (*shanzhai phones*), emerged with the inception of MTK kits. The core features provided by these kits allowed manufacturers to focus on all sorts of integrations, often driven by speculative visions of a possible market, by the mash-up of existing phones and trending tech gadgets, or by existing industrial connections. For example, a remote cousin making plastic molding for toys would be an ideal business partner to make plastic dolphin cases for a batch of phones. Compared to the sophistication of global supply chains involved in the making of an iPhone, the simplicity and velocity of *shanzhai* manufacturing stands out through its practice of trial-and-error, with small incremental iterations of products, possibly leading in some cases to innovations with long-lasting consequences. Often visually





SHANZHAI PHONES, 3D RENDERING: CIGARETTE PACK PHONE, RAZOR PHONE, PEN PHONE AND TASER PHONE. 3D rendering: Terrell Davis.

indistinguishable between iterations, these feature phones are made in relatively small quantities and circulated directly through resellers across China and worldwide, as well as through online shops.

Functions of these phones vary as well, sometimes in an anecdotal manner, sometimes with entirely new features, sometimes in a purely decorative sense. A phone shaped as Mickey Mouse or a fluorescent skull first strikes one as a completely useless gadget, right before we remember that the aesthetics of productivity associated with today's mobiles may one day be regarded as some strange 21st-century custom.

#### DISAPPEARING ARTIFACTS

Further to the origin and making of these phones, we need to consider their entire lifecycle. Struck by extreme obsolescence, the duration of their existence as phones is determined by different factors: the success of their sales, the will of the buyer to keep them, or their own failure as functional devices. The high risks associated with all these criteria makes the *shanzhai* business a very wasteful one. The very low level of entry in the market encourages cut-throat competition for the lowest costs and the most aggressive deadlines, leading to all kinds of defects and quality control issues—including entire stocks being totally dysfunctional or never entering the market. For this reason, models that are not profitable from day one, or that stop being produced for some reason, are virtually impossible to find after a few weeks. To save on costs, an entire industry of recycling exists to buy back these phones and convert them into parts. The opposite is also true, with used parts often finding their way into these phones in order to lower the cost of materials, making them even more prone to breakage.

For all these reasons, *shanzhai* phones can be hard to find—and to conserve. The models you may have seen online are not always available, or arrive with slightly different aspects or specifications: the plastic wears out quickly, the battery leaks easily, etc. Conversationally, these phones are also hard to obtain within the EU or the US, as regulations usually prevent them crossing customs borders. In this respect, an important part of the *Shanzhai Archeology* project was to source the phones from mall kiosks and street vendors in Shenzhen and other cities in China, as well as from various websites. Apart from the always useful Chinese e-commerce platforms like Alibaba and Aliexpress, we began to frequent different e-commerce websites from unexpected countries, where the phones were to be found. Less interesting were the hours spent talking to a diverse range of officers and clerks in European airports and customs administrations. Per EU regulations, most of these phones were not allowed because of the absence of proper CE marking.<sup>2</sup> The Li/Li-On batteries especially were qualified as hazardous and were ultimately forbidden from being transported on any aircraft as per IATA rules.<sup>3</sup> From manufacturing, to online sales and border

<sup>2</sup> CE marking is a certification mark that indicates conformity with health, safety and environmental protection standards for products sold within the European Economic Area (EEA).

<sup>3</sup> IATA official website, consulted on January 15, 2018.



TOP: HUAQIANGBEI ELECTRONICS MARKET, SHENZHEN, CHINA.

BOTTOM: SHANZHAI ARCHEOLOGY INSTALLATION, MAISON POPULAIRE, MONTREUIL, FRANCE.

regulations, an interesting geography began to appear around the (absence of) circulation of a large part of our *shanzhai* phones, where Europeans were safely kept out.

When we began the project, most *shanzhai* factories had transitioned out of the *shanzhai* model, or had already closed. Thankfully from 2014, the *shanzhai* phone had become a well-established online meme, and we were able to find traces of those models of phones that had disappeared years ago. While it was sometimes hard to differentiate parodies and jokes from actual existing models, we began to establish a wishlist of phones in the form of Wild West–esque wanted posters. We were able to get our hands on some of the most recent or common specimens that were still in stock or in production, but for the most part we knew the search was a lost cause. Based on the pictures and materials we were able to collect, we decided to recreate a selection of older specimens as 3D models. This led us to also model in 3D some of the pieces we had bought, as we knew they might quickly degrade or disappear. The practice of digital conservation has been a force for creative renewal in the world of archeology<sup>4</sup> and it made sense here as no culture of conservation of these objects currently exists. In an effort to digitally conserve a worldwide phenomenon, we also consolidated our findings into an archive that contains visual documentation sourced online, featuring fan art of various fictional, fantasy, unbridled and improbably multifunctional phone models that were directly inspired after Internet user exposure to a highly mediatized *shanzhai* culture.

#### COUNTERFEITING THE ORIENTALIST CABINET

A problematic aspect of explaining *shanzhai*—or most things Chinese—to someone who has never visited China is the impossibility of communicating the experience of actually being there, for instance the busy, intense and sensorially overwhelming environment of Chinese hi-tech malls. As our practice of collecting needs to be contextualized, showcased and circulated, we recreated a kiosk as they can be found in electronics markets in China, including large flashy LED panels and a glass display enclosing the phones. Besides the kiosk and the phones we also started a larger documentation process, visiting Shenzhen several times, conducting interviews with locals and academics, filming the practices of design, production, sale and use, and, of course, reading avidly the existing literature. We originally conceived of the kiosk in St Etienne (France) with the intent that its unusual silhouette would serve as a disruption within the codified networks of the Design Biennale. Spectators complained about the lack of context around the display, and the difficulty for them to relate to the full meaning of the piece. Of course, the aesthetic value of the phones was acclaimed by questions such as: “How did you make them?” and, most commonly “How much for this one? I want to buy it for my son!” In the exhibitions that followed, more context was added to the display, with images, video documentaries, texts from knowledgeable authors and academics, and more.

4 See, for instance, New Palmyra. <https://newpalmyra.org>





# LETTRE

DU

PERE D'ENTRECOLLES,  
Missionnaire de la Compagnie  
de JESUS:

*Au Pere Orty de la même Compagnie,  
Procureur des Missions de la Chine  
& des Indes.*

*A Jao tcheou, ce 7  
Septembre 1712.*



ON REVEREND PERE,

*La Paix de N. S.*

Le séjour que je fais de tems  
en tems à King te tching pour les

254 *Lettres de quelques*  
beloins spirituels de mes Néophytes, m'a donné lieu de m'instruire de la manière dont s'y fait cette belle porcelaine qui est si estimée, & qu'on transporte dans toutes les parties du monde. Bien que ma curiosité ne m'eût jamais porté à une semblable recherche, j'ai crû cependant, qu'une description un peu détaillée de tout ce qui concerne ces sortes d'ouvrages, seroit de quelque utilité en Europe.

Outre ce que j'en ai vu par moi-même, j'ai appris beaucoup de particularités des Chrétiens, parmi lesquels il y en a plusieurs qui travaillent en porcelaine, & d'autres qui en font un grand commerce. Je me suis encore assuré de la vérité des réponses qu'ils ont faites à mes questions, par la lecture des livres Chinois qui traitent de cet-

*Missionnaires de la C. de J. 255*  
te matière; & par ce moyen-là je crois avoir acquis une connoissance assez exacte de toutes les parties de ce bel art, pour en parler avec quelque confiance.

Parmi ces livres, j'ai eu entre les mains l'Histoire ou les Annales de *Fou leam*, & j'ai lu avec soin dans le quatrième Tome l'article qui regarde la porcelaine. *King te tching* qui dépend de *Fou leam*, n'en est éloigné que d'une bonne lieue; & *Fou leam* est une ville de la dépendance de *Jao tcheou*. C'est un usage à la Chine, que chaque ville imprime l'Histoire de son district: cette histoire comprend la situation, l'étendue, les limites, & la nature du pays, avec les endroits les plus remarquables, les mœurs de ses habitans, les personnes qui s'y sont distinguées par les armes & par les lettres,



TOP: Section of a letter from Francois Xavier d'Entrecolles concerning Chinese porcelain manufacturing techniques, 1712, re-published by Jean-Baptiste Du Halde in 1735.

BOTTOM: This rare dish, made in Jingdezhen for the western market, exhibits an interesting blend between a classical 18th-century European style and typical Chinese patterns, landscapes and even characterizations.

Still, the act of bringing and displaying Chinese artifacts to Europe bears a striking resemblance with the orientalist cabinet of the 19th century. This parallel is amusing in several different respects. The discourse around counterfeiting has been present in the background of most discussions about the Chinese electronic industry, with *shanzhai* located right at its lower end. During our research, we discovered the interesting story of the Jesuit priest François Xavier d'Entrecolles (殷弘绪 Yin Hongxu) who was born in Lyon in 1664 and died in Beijing in 1741. Father d'Entrecolles arrived in China as a missionary in 1698, where he was praised for his deep knowledge of the Chinese language and sent to Jingdezhen—the capital of the famous art of Chinese porcelain—to appreciate the highest levels of refinery in the Empire. In a letter dated September 1712, the missionary related to his French correspondents that he had finally managed to witness firsthand how the precious pottery was cast, revealing in detail his host's secrets that would, a few decades later, give birth to the European porcelain industry. It is somehow ironic that Victorian England and Napoleonic France's most refined goods originated from such a blatant case of industrial espionage—and counterfeiting on a continental scale. By counterfeiting a Chinese kiosk of counterfeiters, we keep alive this long lineage of piracy and the looting of Chinese knowledge to the benefit of arty European salons. We hope that showing these phones outside China can carry us away from our dominant, one-sided stories about innovation and eventually help us escape our normative imaginaries of technology.

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# POWER BANK PHONE

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Brand:	X-Tigi
Model:	S18
Release date:	2014
Size:	177*104*57 mm
Battery capacity:	10000 mAh
SIM cards:	3
RAM:	<128M
Display resolution:	320x240 (QVGA)
Special function:	Power bank, sold with USB LED light
Price:	US \$25-38

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Produced by the Chinese firm X-Tigi, the *Power Bank Phone* is sold primarily in Accra, Ghana. With features such as a three-card SIM reader and a USB port to connect another phone on the back, this device may appear bizarre to those used solely to Californian or Korean designs. To understand the nature of this design, we need to make the jump to the streets of Accra where the phone is used.

The capital city of Ghana has grown tremendously since the 2000s, becoming one of the most important technological hubs in West Africa. Still, power outages throughout the country are so frequent that they have their own word: *dumsor*—meaning *on and off* in the Akan language. Charging a phone can quickly become a problem, and a massive battery capacity as well as the ability to charge another device can be very useful. In addition, this phone is often sold with a USB bulb which can illuminate any room, thanks to the hook integrated into the phone.

In many places on the African continent, mobile operators will charge more if the number called is operated by a different company. To keep bills reasonable while still calling who they like, people have been using multiple SIM cards and numbers to call each other. Instead of constantly switching cards or owning several phones, having a phone with 3 SIM slots is a very handy solution.

There are several more options on the *Power Bank Phone* that directly answer issues faced by local phone users, such as a high-powered antenna and reinforced case for better use in rural and remote areas. Chinese entrepreneurs have been coming to Africa in the guise of businesses, individuals and families for decades now. Relying on Southern China's manufacturing powerhouse, they have pulled together devices to address daily issues they have witnessed locally. Oftentimes, their own background in China's rural areas has helped them to identify needs and even to test them in China, matching this with an industrial knowledge of export and fabrication. As of today, Chinese mobile phone companies—such as *Transsion*—are leaders on the African continent, far from the Western image of “tech” that suddenly appears isolated in a much larger world.





# CARD PHONE

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Brand:	Card Tec
Model:	CM1
Release date:	2012
Size:	85*54.5*6.3 mm
Battery capacity:	320 mAh
SIM cards:	1
RAM:	8M
Display resolution:	320x240
Special function:	--
Price:	US \$12-29

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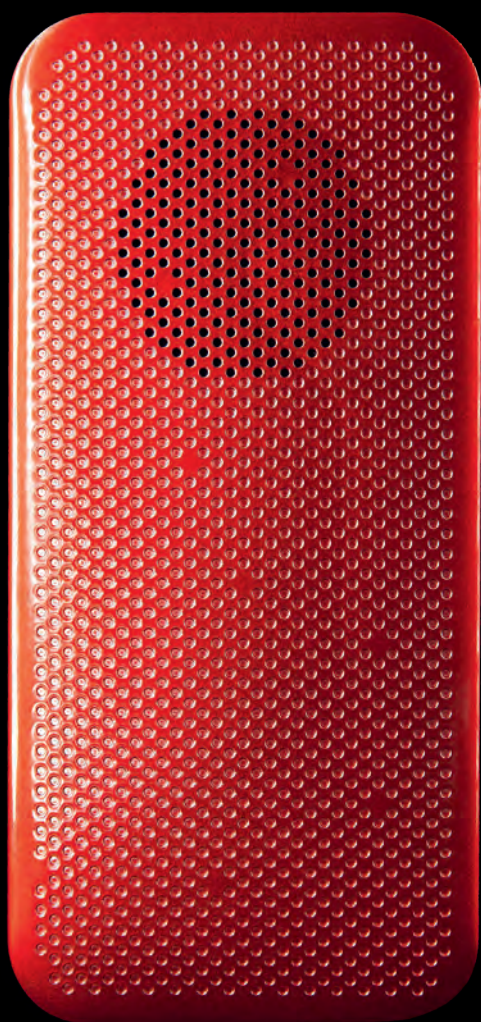
No bigger than a credit card, the *Card Phone* costs less than 12 US dollars and is composed of a single board. A stand-out due to its very simple architecture, it is nevertheless a complete phone with quad-band GSM, Bluetooth, MP3 playback, an OLED display and a backlit keypad. This model is composed of a MT6250 board from the Taiwanese company MediaTek (MTK), and a few accessories (plastic case, mic, charger cord, etc).<sup>1</sup>

The *Card Phone* exemplifies two complementary dynamics: the strategy of Taiwanese chipset constructors to capture the mobile phone market, and the tactics of product development by Chinese manufacturers. Inspired by the success of no-brand computers in the 1990–2000s (called *white boxes*), Taiwanese companies such as MTK began producing multipurpose chips with support for GSM and other standards (Bluetooth, etc.) with the goal of bypassing the usual brands in order to work directly with factories. By flooding the market with cheap boards—such as the MT6250 used in the *Card Phone*, they established a network of resellers in Southern China that could push products directly to design houses that focused on developing new forms and features for the phone market.

This ready-made piece of technology allowed factories to transform into design houses. They soon started designing their own phones based on the cheap and available MTK chipsets, effectively giving birth to *shanzhai* phone manufacturing. They relied on their existing industrial network—often friends and families—and started to accumulate available resources (plastic molding, electronics, clothing, etc.) to bring their latest ideas to life. Contrasting with the strong marketing of the open-source movement, these informal practices were extremely competitive and led to a race towards cost-cutting and aggressive pricing that somehow culminated with the barebones iconic design of the *Card Phone*.

Such phones, with their simplicity and low price range, have been instrumental in democratizing access to mobile phones globally over the past decade.

1 Huang, Bunnie. 2013. “The \$12 Gongkai Phone.” *Bunnie Studios* (blog). April 18, 2013.



# SOUND SYSTEM PHONE

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Brand:	GoFly
Model:	A8
Release date:	2016
Size:	144*67*30mm
Battery capacity:	8800mAh
Screen size:	3 inches
SIM cards:	2
RAM:	<128M
Display resolution:	320x240
Special function:	Torch
Price:	US \$40-60

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The *Sound System Phone* stands out with its red case, large buttons and powerful back-facing speakers. The device answers the need of a demographic usually forgotten by mobile phone marketing and other “tech revolutionaries”: the elderly. In China, the growing distance between family members and the increasing reliance on digital technology in daily life (payment, administration, communication, etc.) had made access to mobile phones for the elderly an important endeavor.

Anyone who has strolled around the public parks of Chinese cities will remember the groups of elderly present there, usually busy with dancing, singing or playing mah-jongg. The ability to play music aloud is unquestionably a selling point, as dancing in China is an important practice in public spaces with millions of men and women meeting each evening on squares all across China to practice their dance steps—the famous *guangchang wu* (广场舞). Therefore a tool that can broadcast music outdoors—and can also hold several gigabytes of old-fashioned Chinese songs—is a sure sell to pensioners.

While hundreds of millions of people in China have moved to cities over the past decade, the elderly have often stayed at home in the countryside. Recent generations of urbanites have been struggling to bring their family together in their new city of choice—traditionally in order to look after the kids. This *Sound System Phone*, with its integrated flashlight to better find one’s way home after dancing, seems to have been designed with life in the countryside in mind.

The design and features of the *Sound System Phone* cast light on the propensity of large brands to exclude a growing part of the population from their dominant representations of technology.



# BUDDHA (GOD) PHONE

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Brand:	MAFAM
Model:	U1 (copy of Wellwishing Zen)
Release date:	2016
Size:	74.6*52*21.8 mm
Battery capacity:	500 mAh
SIM cards:	2
RAM:	<128M
Display resolution:	320x240
Special function:	Digital altar
Price:	US \$36.58-54.34

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This model is a cheap replica of a luxurious original creation commercialized under the name of *Wellwishing Zen*. Designed as a digital alternative for Buddhist prayer and related religious activities, the original *Buddha Phone* replicates some of the essential ritual components: the burning of incense, purification rites and meditative music.

The original *Wellwishing Zen* phone was designed by the Shenzhen-based company *Artop* as an attempt to create a phone whose inspiration would not be Californian, but typically Chinese. The design research process involved a collection of Buddhist symbols, motifs and patterns found in Xixinchuan Temple, at the foot of Mount Gaoding in Hunan Province. With the help of the monks, a set of prayers and lessons were identified and added to the phone, with other built-in features such as the ability to choose an idol with which to make a prayer, light a candle, and offer a fruit or a flower. A Buddhist calendar was included as well as a library of Buddhist texts and quotes, and automatic reminders for Buddha and various Bodhisattva's birthdays. Each phone was then built with precious metals and blessed by one of the disciples of the temple.

After its release, the original model sold at a very expensive price on a luxury niche market. In a matter of months, many copies started to appear in shops online and offline across China. The *Buddha Phone* included in our collection is made of cheap plastic but retains many of the features and contents of the original, with Buddhist materials, calendars, in-app rituals, etc. While the company who originated the product may disapprove of the counterfeiting of their work, the more proselyte monks may have found it very satisfactory.

Beyond its strange shape, the trajectory of the *Buddha Phone* shows how the original-copy dynamic is not driven by West-East opposition, but by far more complex market and cultural forces.



# PRISONER PHONE

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Brand:	LONG-CZ
Model:	J8
Release date:	2014
Size:	68*23*11 mm
Battery capacity:	320 mAh
SIM cards:	1
RAM:	32 Mo
Display resolution:	480x320
Special function:	99% plastic, voice changer, Bluetooth headset
Price:	US \$27.99

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The *Prisoner Phone* or J8 model from the Chinese brand Long-CZ, was originally marketed as the world's smallest mobile phone. Made of 99% plastic, the device turned out to be barely detectable while crossing security checks at airports and prisons.

In Ireland and the United Kingdom, where phones are forbidden during incarceration, such mini-phones quickly gained notoriety across inmate populations. To continue conversing from the inside, prisoners were smuggling the phones “internally.” These tiny devices were such a hit in the UK and Ireland that in 2008, prison directors decided to install counter devices known as Body Orifice Security Scanners—nicknamed the BOSS. Advertized online as the “Beat the Boss phone”, these small devices continue to be widely used, with hundreds of items seized every year. Easy to conceal and transport, they can also be readily smuggled in by drones or even carrier pigeons.

Similar phones were used to arrange a prison escape in 2016 in the UK, after which anti-mobile security measures were drastically increased, including a wide variety of deterrents and detectors.

Despite its small size, the feature set includes a camera and two SIM slots. While the original model did not present any special features beyond its size, later models came with improvements such as a voice changer to modify the voice print of the caller, and later a smartphone version. A number of fantasy cases also started to appear, with miniature mobile phones now disguised as BMW car “fobs”, or a replica of the iconic Nokia 3310.

Originally designed to look like a Bluetooth headset, the *Prisoner Phone* demonstrates how an original intent can be diverted unexpectedly, and how technology is transformed and redefined by the ways it is used.