

Is the Object Obsolescent ? On Reuse Beyond Simondon

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Résumé

L'article analyse de manière critique le statut de l'obsolescence des objets techniques dans le contexte de la société contemporaine de consommation, en prenant pour axe théorique central la philosophie de la technique de Gilbert Simondon. L'auteur soutient que l'obsolescence n'est pas principalement un phénomène technique, mais un phénomène social, symbolique et économique, produit par les dynamiques du marché, par la publicité et par la logique de l'innovation permanente, qui dissocient l'objet de sa durabilité structurelle. À partir de ce constat, le texte propose la réutilisation comme un geste technique, éthique et politique, distinct de la simple pratique du recyclage ou de la restauration. Réutiliser signifie réinvestir l'objet de nouveaux schèmes fonctionnels, inaugurant ainsi un nouveau cycle inventif qui préserve le noyau technique de l'artefact et réinscrit l'humain dans la relation à la technique. Cette pratique est présentée comme une forme de résistance à la déshumanisation de la consommation et à la réduction des objets à de simples marchandises jetables. L'article examine également les liens entre réutilisation, écoconception et économie circulaire, en soulignant la nécessité de repenser le design à partir de la durabilité, de la démontabilité et de l'ouverture fonctionnelle des objets. Des exemples issus du design, de l'art contemporain et de pratiques éducatives illustrent la manière dont des objets obsolètes peuvent acquérir de nouvelles fonctions, des valeurs symboliques et une pertinence sociale renouvelée. Enfin, le texte défend l'idée que la culture de la réutilisation implique une transformation plus large de la société, fondée sur des principes de responsabilité, d'imagination technique et d'éducation, capables de promouvoir une relation plus éthique, durable et solidaire aux objets techniques.

Mots-clés : Obsolescence des objets techniques; Philosophie de la technique; Réutilisation; Économie circulaire; Design durable.

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Abstract

The article critically examines the status of the obsolescence of technical objects within the context of contemporary consumer society, taking Gilbert Simondon's philosophy of technology as its central theoretical framework. The author argues that obsolescence is not primarily a technical phenomenon, but rather a social, symbolic, and economic one, produced by market dynamics, advertising, and the logic of permanent innovation, which detach the object from its structural durability. On the basis of this observation, the text proposes reuse as a technical, ethical, and political gesture, distinct from the simple practices of recycling or restoration. To reuse means to reinvest the object with new functional schemata, thereby inaugurating a new inventive cycle that preserves the technical core of the artefact and reinscribes the human within the relationship to technology. This practice is presented as a form of resistance to the dehumanization of consumption and to the reduction of objects to mere disposable commodities. The article further examines the connections between reuse, ecodesign, and the circular economy, emphasizing the need to rethink design in terms of durability, dismantlability, and the functional openness of objects. Examples drawn from design, contemporary art, and educational practices illustrate how obsolete objects can acquire new functions, symbolic values, and renewed social relevance. Finally, the text argues that a culture of reuse entails a broader transformation of society, grounded in principles of responsibility, technical imagination, and education, capable of fostering a more ethical, sustainable, and solidaristic relationship with technical objects.

Keywords: Obsolescence of technical objects; Philosophy of technology; Reuse; Circular economy; Sustainable design.

Laissez-moi ainsi
comme une
chose
déposée
dans un
coin
et oubliée¹

Giuseppe Ungaretti, *Natale* [1918]

¹ "Leave me like this / like a / thing / laid down / in a / corner / and forgotten"(T.N.)

Je suis allé au marché à la ferraille
Et j'ai acheté des chaines
De lourdes chaines
Pour toi mon amour²

Jacques Prévert, *Pour toi mon amour* [1946]

1. Reinventing a Technical Object.

The current world demands a reversal of our attitude toward objects. Consumption and the frenzy for novelty have led us to become true executioners of objects. We must save them at all costs—and not only for environmental reasons. To save them from the fate that reduces them to waste, we must give them the chance to extend their life—that is, recycle or restore them—or to have another life, that is, reuse them, which is perhaps the best gesture to oppose the constraints of the global market. Now, the reuse of technical objects is not merely an ecological requirement; it is above all a question of a purely technical nature, as Gilbert Simondon—the only philosopher of the 20th century who analyzed techniques as such—noted. In 1983, during a very dense interview with Anita Ketchichian for the journal *Esprit*, the philosopher from Saint-Étienne observed: “[t]he true technology is a reinvention. [...] We must preserve the material of the past because it represents a possibility of revival, and not only to constitute an archaeology. [...] Techniques are never completely and forever in the past. They contain an inalienable schematic power that deserves to be preserved and safeguarded.”³

Thus, reuse, as reinvention, is strictly linked to the obsolescence of objects, and the idea of technical obsolescence fits into Simondon's overall perspective regarding the evolutionary process of objects; he indeed writes on this subject: “one must consider as an aspect of consumption the fact of social obsolescence: an automobile, just like a hat, is out of fashion before it is worn out or technically outdated.”⁴ Reused objects—that is, objects that have already passed their phase of obsolescence—trigger a new inventive cycle, and invention, for Simondon, is precisely the human part of the object that must be recognized, protected, and ‘saved,’ to oppose “the loss of passion of the individual toward the object, a kind of depersonalization of the human/object relationship.”⁵ Simondon himself was a practitioner of reuse, if it is true that, as Jean-Marie Charpentier recounts, in Poitiers, in his Psychology Laboratory, he had used decommissioned American radars to make oscilloscopes⁶.

² “I went to the scrap market / And I bought chains / Heavy chains / For you, my love” (T.N.)

³ Simondon, G., 1983, “Sauver l'objet technique”, in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, Presses Universitaires de France (PUF), pp. 450–454.

⁴ Simondon, G., 1962, “Objet économique et objet technique”, in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, pp. 374–375.

⁵ Appiano, A., 1999, *Eстетica del rottame. Consumo del mito e miti del consumo nell'arte*, Roma, Meltemi, p. 150.

⁶ Charpentier, J.-M., 2018, “Un contadino del Danubio. Gilbert Simondon à Poitiers. Entretien réalisé par Giovanni Carrozzini”, in *Il Protagonista*, vol. XLV, 6e série, no. 29–30, pp. 223–227.

To return to the general question, we can say that to reuse is not only to restore or recycle an object; it is rather to reinvent it, to give it a chance to begin a new adventure, free in relation to its inventor—an adventure that is quasi-autonomous, but not independent. A requirement, that of reuse, is becoming ever more urgent in the contemporary world, since it is true that today “the entire production/consumption mechanism inexorably aims to configure the product in a one-way sense, for a programmed use, oriented toward ever-increasing thresholds of innovation, but not always necessary, and in fact functionalized by the logics of profit and the market.”

⁷ Now, the “art” of reusing objects is not a skill acquired by digital natives; as Pulvirenti observes on this point: “We’ll keep this... it might come in handy!” That was the philosophy of our grandmothers, who never threw anything away because maybe, one day, that thing could become useful again.”⁸ But it must be added that the reuse of objects varies according to cultures and geographic areas. Reuse can indeed arise from the need to address the problem of accumulation, as is the case in developed countries, but it can also arise for other reasons, “in developing countries [where] the problem is linked to the lack of means, the lack of goods and advanced resources, rather than to their overabundance as in rich countries.”⁹ The question that arises in any case regarding the reuse of objects is precisely: what is a technical object to be reused? The answer comes to us from Simondon: an object is not only the coherent technical organism, but also its components—the elements—and its organizational ensembles—the systems. Reuse therefore demands from us a true rediscovery of technical thought, softened by the constraints of the global, globalized, and globalizing economy—that is, the economy that dominates a society that “scraps, throws away, eliminates, forgets, loses, recycles everything that is no longer new, no longer efficient, no longer perfect and youthful, lucid and taut, whole and integrable into a system.”¹⁰ As Simondon writes:

“[T]he object, as an object of use, is subject to a process of progressive degradation through wear, corrosion, deformation. In certain objects, such as a microscope, this process is almost inoperative if the object is well maintained. However, a certain halo effect spreads, starting from objects that deteriorate, to all technical objects, and leads one to think that they lose their quality of use over time. [...] [O]ne can consider this process of invisible but presumable degradation as one of the bases of the depreciation of objects of use over time.”¹¹

⁷ Pagliero, A., 2007, *Redesign. L'oggetto ritrovato*, Pescara, Sala, p. 34.

⁸ Pulvirenti, E., 2009, *Design del riuso. Quando un problema diventa una soluzione*, Doria di Cassano allo Jonio (Cosenza), La Mongolfiera, p. 7.

⁹ Pagliero, A., 2007, *Redesign. L'oggetto ritrovato*, Pescara, Sala, p. 18.

¹⁰ Appiano, A., 1999, *Eстетica del rottame. Consumo del mito e miti del consumo nell'arte*, Roma, Meltemi, p. 148.

¹¹ Simondon, G., 1960–1961, “Psychosociologie de la technicité”, in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, pp. 53–54.

2. Is the Object Obsolete?

However, before analyzing the civility of reuse, to use Guido Viale's expression, we must study the process that contributes to the obsolescence of an object. It is true, as Viale notes, that: "the current productive world, in fact, because of and according to its ever-increasing implications, conditions the existence of objects to a kind of relativity that is all the more significant as their functional and meaningful complexity is high, and more variable as their placement is taken within the structures of the market."¹² From this point of view, advertising and fashion are two determining factors: they contribute to the arrival of the 'new' and the eclipse of the 'old,' independently of authentically technical evaluation criteria. So here we are talking about the fashion for the 'new' and not about that which rediscovers the old object—the 'retro' style that Simondon tells us in 1983 reinserts the object "into the present."¹³ Now, the technical object possesses at least three types of values: exchange or economic value, technical or structural value, and symbolic value. Advertising and fashion work mainly on the first and the third, and—as Simondon puts it—thus contribute to the exaltation of the over-historicity of the object, that is, to its overdetermination "as a psycho-social symbol"¹⁴; over-historicity is not neutral with respect to the object, because it "creates barriers, of which an example can be given in the fact that an automobile goes out of fashion faster than it wears out."¹⁵ Fashion and advertising focus on the object's contemporaneity; on the contrary, we should focus, technically, on its durability and permanence, because it is true that "the life cycle of an object could be as long as the technical, functional, and representative conditions that characterize it remain and endure."¹⁶ On this point, it is also true that Simondon had thought of a new advertising strategy respectful of the technical identity of objects: "at the level of a true advertising strategy, the handling of motivations gives way to a positive task of information intended to form archetypes from which cognitive structures will emerge. [...] [T]he point is not to sell, but to invent the object that will be manufactured so that it can be sold without advertising."¹⁷ But it is his dreamer's spirit that suggests this conclusion: for advertising, from its birth to today, things have worked very differently. Returning now to durability, it is the principle of ecodesign, whose promises aim "not only at the use of recycled materials in their production and at saving resources and energy during their manufacture, use, and handling; but also all operations of identifying

¹² Viale, G., 2011, *La civiltà del riuso. Riparare, riutilizzare, ridurre*, Roma-Bari, Laterza, p. 20.

¹³ Simondon, G., 1983, "Trois perspectives pour une réflexion sur l'éthique et la technique", in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, p. 345.

¹⁴ Simondon, G., 1960–1961, "Psychosociologie de la technicité", in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, p. 29.

¹⁵ Simondon, G., 1960–1961, "Psychosociologie de la technicité", in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, p. 58.

¹⁶ Pagliero, A., 2007, *Redesign. L'oggetto ritrovato*, Pescara, Sala, p. 21.

¹⁷ Simondon, G., 1960, "L'effet de halo en matière technique : vers une stratégie de la publicité", in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, p. 293.

and reassembling disused products and the recovery and recycling of their materials and components”¹⁸; more generally, it is “the imaginative capacity to seek alternative systems, technologies, and strategies.”¹⁹ To return to the question we asked ourselves: how does an object become obsolescent? Viale suggests on this point that: “the entry of a thing into the world of the used is a complex passage, composed of at least two distinct moments; the decision to get rid of an object because it no longer serves, we no longer like it, we no longer want it, or we can no longer stand it; and the operation of removing it, giving it away, consigning it, or taking it away; because it may serve or please someone other than the one who used it.”²⁰

It is the moment when we part with an object that its “meaning” is revealed: its obsolescence as an everyday object of use gives way to its persistence in the realm of existence, of affectivity. It is then that the necessity arises to think about the destiny of the object as such, once it has lost its immediate utility but not yet its existence. It is indeed true that an object, as an object,

“can suggest an idea of material permanence and continuity of uses and meanings; in every domain, each material thing presents aspects of permanence, in constant contradiction with the impulses of continual innovation and transformation typical of contemporary reality; reasons and motives of affection, representativeness, and memory make this same idea of permanence appear as a kind of added value to that already implicit, which is contained in its material structure and in its capacities to endure beyond the conventional limits often imposed by contextual circumstances.”²¹

The object thus becomes the protagonist of a series of possible human actions: inventory, give, throw away, sell, or reuse. Now, reuse is, according to Viale, “the second life of the thing,”²² and therefore, in this series of possible actions, reuse is the only truly technical act: it is a gesture made to the object for the object, which consists in reinventing it, as we have already said. But the universe of reuse is a complex universe. There are at least three types of possible reuse: “a) the reuse of an artifact for the same function, by working to restore it. b) the reuse of an artifact for similar functions by making the necessary modifications. c) the recovery of the components of an artifact to reproduce a similar type or another type, depending on the shape and availability of the parts.”²³ In any case, reuse involves a first common moment, which I would dare to define as an *epoché* with respect to its over-historicity: that is, the detachment from the affective-emotional meaning it may have previously

¹⁸ Viale, G., 2011, *La civiltà del riuso. Riparare, riutilizzare, ridurre*, Roma-Bari, Laterza, p. 17.

¹⁹ Barbero, S., Cozzo, B., 2009, *Ecodesign*, Milano, Gribaudo, p. 13.

²⁰ Viale, G., 2011, *La civiltà del riuso. Riparare, riutilizzare, ridurre*, Roma-Bari, Laterza, p. 20.

²¹ Pagliero, A., 2007, *Redesign. L'oggetto ritrovato*, Pescara, Sala, p. 22.

²² Viale, G., 2011, *La civiltà del riuso. Riparare, riutilizzare, ridurre*, Roma-Bari, Laterza, p. 26.

²³ Pagliero, A., 2007, *Redesign. L'oggetto ritrovato*, Pescara, Sala, p. 25.

possessed, in order to rediscover its structure, its functioning, and thus be able to reinvent it—that is, apply new schemas to the object. But a society that reinvents, a technical society—that is, a society that thinks and works in a technical way—is above all a human society, all too human. The society of reuse is a transindividual society, where the transindividual can be conceived as the foundation of solidarity: “a solidary and convivial society is also a human consortium where things ‘ask’ to be used by many people, to have a new master if they have lost the previous one.”²⁴ This society would be founded on a vaguely Kantian imperative, adapted in Simondon’s manner: “always treat the object as an end, never as a means,” or again, “do not do to the object what you would not want done to you,” thus opposing the...

“the dis-humanity that loses the sense of the past, of roots, the archetypal bond with the object, the sense of the beauty of a gaze, of a face, of a figure marked by life [...] or lowered and immersed in its thoughts [...]; the system that revolves around an alienating, frantic, exaggerated consumerism and eyes maddened by the money-god is killing the soul, is erasing the time to observe, to appreciate, to think, to meditate—the time of the essence of man.”²⁵

It is indeed true that “the overcoming of the utilitarian approach in the cognitive domain—and of the utilitarian ethics that is consubstantial with it—is a revolution of thought and conduct that removes man from his position as center and master of the world, to place works and activities within broader cycles of which they represent a segment, but which it is dangerous to interrupt.”²⁶ This approach is therefore driven not only by the need to rethink the object, but above all by the need to redesign society. If, as Pagliero observes, renewal and innovation are the watchwords of the contemporary product industry and “the frenzy for novelty (...) is a true monstrosity,”²⁷ as Simondon asserts, the philosophy of Redesign primarily raises environmental questions: “the principles and philosophies of Redesign extend their rationale by referring to environmental issues, as hypotheses for reconfiguring products and services based on durability and compatibility.”²⁸ This is precisely a reversal of the constraints of capital, which transform us into serial destroyers who unleash their repressed rage on their objects, against this “kind of violence, of disorder,”²⁹ as Simondon precisely says: for example, in the case of truck shows where vehicles crash into each other like gladiators in the arena—“this fight against

²⁴ Viale, G., 2011, *La civiltà del riuso. Riparare, riutilizzare, ridurre*, Roma-Bari, Laterza, p. 36.

²⁵ Appiano, A., 1999, *Estetica del rottame. Consumo del mito e miti del consumo nell'arte*, Roma, Meltemi, p. 149.

²⁶ Viale, G., 1994, *Un mondo usa e getta. La civiltà dei rifiuti e i rifiuti della civiltà*, Milano, Feltrinelli, pp. 168–169.

²⁷ Simondon, G., 1983, “Sauver l’objet technique”, in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, p. 449.

²⁸ Pagliero, A., 2007, *Redesign. L’oggetto ritrovato*, Pescara, Sala, p. 57.

²⁹ Simondon, G., 1965, “Entretien sur la technologie avec Yves Deforme”, in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, p. 403.

a false enemy seems to us to be harmful [...]. The technical object is too easily taken as a scapegoat. If all our sufferings came from technical objects, it would suffice to drown them in the sea, after ritually charging them with our faults.”³⁰

It is indeed true that—as Pagliero says, directly quoting Simondon:

“in the contemporary world, the meaning of a product is determined by reasons external to its nature as a ‘technical object,’ according to Simondon’s definitions; which refer to those forms, structures, and functions that define its technological-material status; in other words, its logical meaning, independently of the reasons for hypertrophies of production and market.”³¹

3. *Throw away objects?*

Now, before addressing reuse as such, it is necessary to analyze it in relation to another possible action toward the object as an obsolete component: namely, the action of “throwing away.” The technical culture of reuse does not imply that everything must or can be saved: “there are sets of objects [...] which, due to their technical and constructive structure, can be difficult to rehabilitate, as is the case for those that exhaust themselves in the exercise of their function: for example, a battery, a light bulb, or a garment after a certain limit of use.”³² We must therefore learn to throw away. But what should be done with all the discarded objects that can be reused? The first way to reuse discarded objects is to look for them in the trash, in large landfills. There are people who have made this activity a way to save objects. But it is a rather uninventive way: it is limited to prolonging the life of objects without reinventing them, except in cases where waste becomes components for the creation of new subsistence objects, as in *Robinson Crusoe*. Waste, moreover, is also a figure of human activity and existence; it is “the ‘repression’ of this systematic activity of theft and waste of the Earth’s ‘resources.’”³³ As Pagliero observes, via Scanlan: “human history has continually produced waste which, in different ways, is and represents history itself.”³⁴ Cultures develop as networks of meanings, and waste also possesses its meaning within these cultures. It is not necessary to cite Bataille and his economy of expenditure to understand this. As Viale says: “once thrown away, things—certain things, or even many things—can still be recovered.”³⁵ Objects, components discarded because they are obsolescent, can well, for example, become the *raison d’être* of collectors who, thanks to their inventiveness, become true visionary artists: “those who, with the materials collected, engage in tinkering,

³⁰ Simondon, G., 1960–1961, “Psychosociologie de la technicité”, in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, p. 75.

³¹ Pagliero, A., 2007, *Redesign. L’oggetto ritrovato*, Pescara, Sala, pp. 33–34.

³² Pagliero, A., 2007, *Redesign. L’oggetto ritrovato*, Pescara, Sala, p. 28.

³³ Viale, G., 1994, *Un mondo usa e getta. La civiltà dei rifiuti e i rifiuti della civiltà*, Milano, Feltrinelli, p. 7.

³⁴ Pagliero, A., 2007, *Redesign. L’oggetto ritrovato*, Pescara, Sala, p. 5.

³⁵ Viale, G., 2011, *La civiltà del riuso. Riparare, riutilizzare, ridurre*, Roma–Bari, Laterza, p. 42.

including installations and works of art.”³⁶ This is a way of recognizing the openness of an object to new possible destinations, and even to new social identities. A discarded technical object, a useless component, becomes the engine of artistic invention and can well lead to the production and creation of a work of art or an aesthetic object in general. This type of reuse I will address in the last part of this article, by discussing the case of Rondella, a mysterious artist who sells online his small “peaceful robots” made from real technical waste.

For now, let us follow the object “that begins its path toward final disposal.”³⁷ A whole new way of rethinking the object must be introduced. A new life begins. The privileged place of this new existence of the object is the flea market, where the object awaits a new owner and, hopefully, its new inventor. Flea markets are the cradles of objects to be reused: they can be purchased to continue their existence in other hands, or they can become something else. In any case, this is where the object most often (re)is born. Now, as we know, the object that (re)is born on the stalls of a market can indeed be bought, as mentioned, without changing its function: this is the case when it is purchased by recognizing its structure and functioning. But this way of buying an obsolete object also has a technical character. In most cases, the purchased object is also an object to be repaired. There is an entire culture of tinkering, which Simondon understood. To restore, to repair is above all to learn how to do. The first step toward recovery through restoration is contemplative in nature; it is precisely the expression of that sensitivity toward the object that Simondon spoke of: technical beauty. Contemplation is therefore not separate from knowledge of the object: repairing to reuse is part of (technical) culture. At the base of this culture lies a true love for the object, the same feeling that Fordist culture, in order to justify mass production, emptied of meaning, even erased. Extending the life of an object, as in the case of restoration, means moving from an economy of waste and consumption to a circular economy of recovery, which also has its own way of reinventing objects. It happened to me, while restoring an old phonograph from the 1930s with a friend, that we had to replace missing and irrecoverable parts with elements from other objects, whose function and use we rethought. This was the case with the support arm of the amplifier, which lacked the connector: to repair it, we reused (and rethought) a plastic part from a tube that was used to extend a faucet and diffuse the water flow. In the society of reuse and reinvention, there is no such thing as waste. Everything can serve. This is the principle of ecodesign, that is, design that:

“minimizes the presence of toxic substances in products, incorporates recyclable/recycled materials, reduces the quantity and types used, employs materials that are compatible with each other during the recycling phase, reduces the amount of work-related waste, minimizes

³⁶ Viale, G., 2011, *La civiltà del riuso. Riparare, riutilizzare, ridurre*, Roma-Bari, Laterza, p. 48.

³⁷ Viale, G., 2011, *La civiltà del riuso. Riparare, riutilizzare, ridurre*, Roma-Bari, Laterza, p. 59.

packaging, uses a reusable packaging system, increases the energy efficiency of electrically powered products, simplifies access to parts for replacement or maintenance, and enables the recovery of components for recycling.”³⁸

It is from this ecodesign based on durability that the conception and realization of the Phoenix chair, produced by Offecet and designed by Luca Nichetto and Francesco Dompieri, derives. This chair is entirely recoverable; it is an “open” object in Simondon’s sense, that is, “an object that presents itself as fully real, that does not conceal itself.”³⁹ Easy to assemble, each part of the chair can be recycled once worn out and replaced by new parts which, in turn, can be recycled and replaced: here are the principles of the circular economy at work—an economy that no longer relies on simple linear causality, but on a complex causality that reacts in a controlled way upon itself. Here we find a way of reusing the object that Pagliero summarized as follows: “intervening on an already existing objectual reality by means of operations that could be defined as exogenous because they act on a constructed body defined by structural additions or functional modifications,”⁴⁰ which contrasts with the approach that consists in “conceptually defining the structure of any objectual reality to program its possible modifications and changes according to a principle that could be defined as endogenous, or internal, because it is the structure of the object that is modified, according to circumstances, by means of determined transformations.”⁴¹ This is how Nichetto and Dompieri respond to a critical observation by Appiano regarding recycling, which deserves to be quoted in full:

“Why don’t large, medium, and small industries think about using less polluting procedures and materials for the production and manufacturing of products, and instead we, the consumers, who have already wasted our money on illusionistic and exaggerated designs and pay taxes for garbage collection, must waste our time subdividing our excessive waste, preparing bulky items, bags of plastic bottles, and others of glass bottles, etc., and go through the endless ritual of unloading one piece at a time into the ‘bells’ for separate collection [...]?”⁴²

Now, when we said that everything is reusable, we did not tell the whole truth: there are, in fact, objects “born to die.” This is the case, among others, with

³⁸ Pulvirenti, E., 2009, *Design del riuso. Quando un problema diventa una soluzione*, Doria di Cassano allo Jonio (Cosenza), La Mongolfiera, p. 7.

³⁹ Simondon, G., 1965, “Entretien sur la technologie avec Yves Deforge”, in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, p. 402.

⁴⁰ Pagliero, A., 2007, *Redesign. L’oggetto ritrovato*, Pescara, Sala, p. 37.

⁴¹ Pagliero, A., 2007, *Redesign. L’oggetto ritrovato*, Pescara, Sala, p. 37.

⁴² Appiano, A., 1999, *Eстетica del rottame. Consumo del mito e miti del consumo nell’arte*, Roma, Meltemi, p. 152.

batteries; and this is where the reconceptualization of ecodesign comes into play. Batteries are, in fact, objects to be used and thrown away once exhausted. Could new technologies help to rethink them? Moixa Energy Limited thought of solving the problem as follows: “[t]hanks to the USB interface, the battery uses the computer’s current to avoid problems related to the disposal of alkaline batteries or to make the production of elements such as the transformer—necessary for rechargeable batteries—superfluous.”⁴³ When recycling is no longer possible, we must reinvent!

Up to now, the discussion has mainly been about restoring, recycling, and recovering: in other words, about the possible continuation of the life of the object as such, that is, respecting its materials, its structure, its functioning, and its function. To restore, recycle, and recover is to continue the life of the same object. But the true technical gesture toward the worn object, the obsolescent object, consists in reinventing it, or even reusing it—that is, in making one object into another object.

4. Saving the Technical Object: Reuse.

Reuse is a transitional practice, to use Pascal Chabot’s expression.⁴⁴ But to *trans-ire*, to go through and beyond, one must first invent—that is, *in-venire*, to go inside. This requires changing our perspective on things, on the world. It is another way of being-in-the-world. This approach can be traced back to Bruno Munari and his Falkland lamp, a modular lamp made with a tube of elastic fabric used for repurposing garments. It is not exactly reuse, but it is nonetheless a way of looking at an object differently, even creatively. But reuse is not only a good practice; it is above all a “European directive”: “[t]he formula of the ‘four Rs’ (Reduction, Reuse, Recycling, Recovery) was born in the 1970s as an environmental slogan and became a European directive in 1991 [Directive 91/156/EEC] [...]. The formula designates an order of priorities established on the basis of hygienic, sanitary, and environmental criteria and identifies as the first option the upstream Reduction of waste; the second option (but in reality the first of the ‘downstream’ options) is Reuse, that is, the extension of the life of a good by maintaining the function of the object.”⁴⁵

Now, the market has already captured the taste for the worn object and is exploiting it for commercial purposes:

“Levi’s recently adopted an advertising campaign where the product—a pair of jeans—is not new but overused and thrown as it is: worn out, dirty, and faded, on a pile of work scrap metal. [...] [O]ne must ask what the real purpose of the company is, since it neither

⁴³ Barbero, S., Cozzo, B., 2009, *Ecodesign*, Milano, Gribaudo, p. 159.

⁴⁴ Chabot, P., 2015, *L’âge des transitions*, Paris, Presses Universitaires de France (PUF).

⁴⁵ Centro di Ricerca Economica e Sociale dell’Occhio del Riciclone (ed.), 2009, *La seconda vita delle cose. Il riutilizzo, nuova frontiera per la gestione dei rifiuti*, Milano, Edizioni Ambiente, p. 17.

produces nor markets worn jeans and advertising, ultimately, aims to encourage purchase; beyond the fact that the jeans are presented as an indestructible ‘work tool,’ Levi’s seeks with this ad to assert itself with a counter-current jeans clothing style, in an anti-conformist trash aesthetic (and perhaps also a little snobbish).”⁴⁶

What, then, is the meaning of reuse? It seems to me that Pulvirenti summarizes its nature and purpose in a way that I would dare to call incisive:

“It is a practice that everyone can put into action [...]; it is an approach that sparks creativity; it is an action that fosters responsibility regarding the use of our planet’s resources; it is an aesthetic based on simplicity and economy; it is an ethics that recovers values such as respect and care for the things around us; it is an opportunity to move toward sustainable development.”⁴⁷

Reuse is therefore a practice to be applied to all those obsolescent objects that were not conceptualized according to the principles of ecodesign and Life Cycle Design—that is, design that extends its territories of “complete and organic conceptualization of the product’s life cycle toward a necessary reorganization of all processes of growth and economic and social development of planetary ecosystems.”⁴⁸ Before reusing, it is necessary to analyze the potentialities of the object to be reused; Appiano summarizes them as follows: the motive, that is, “the idea that starts the subject’s imagination, which develops externally in relation to it”⁴⁹; imagined feelings; the logical form community between “its symbolic level and the morphology of the subject’s feeling”; the displacement of meaning; the sensations and associations that the object stimulates in the subject; continuity of thought; the zone of passion in the subject; the appearance of feeling; the awareness of the object’s degraded level⁵⁰. Now, as Pagliero says, reuse proceeds by addition, subtraction, and substitution—that is, modification “to different degrees [of] structure, form, dimensions, and relative characteristics.” Obsolescent objects are everywhere. They risk increasing the mass of waste: they must therefore be saved by rethinking them.

Reuse is above all a technical practice, but technology is objectified humanity, and therefore it has authentically ethical dimensions. Reusing to help is a first form of reuse. Most of the objects produced are designed for rich countries. And what about the Third World? Reuse can intervene to support it, as in the project to reuse

⁴⁶ Appiano, A., 1999, *Estetica del rottame. Consumo del mito e miti del consumo nell’arte*, Roma, Meltemi, p. 155.

⁴⁷ Pulvirenti, E., 2009, *Design del riuso. Quando un problema diventa una soluzione*, Doria di Cassano allo Jonio (Cosenza), La Mongolfiera, p. 10.

⁴⁸ Pagliero, A., 2007, *Redesign. L’oggetto ritrovato*, Pescara, Sala, p. 52.

⁴⁹ Appiano, A., 1999, *Estetica del rottame. Consumo del mito e miti del consumo nell’arte*, Roma, Meltemi, p. 157.

⁵⁰ Appiano, A., 1999, *Estetica del rottame. Consumo del mito e miti del consumo nell’arte*, Roma, Meltemi, pp. 158–159.

car tires as circular bins that can be rolled on the ground: the Roto-tanque. In this case, the physical properties of the tire—its resistance—were considered and applied to a new object, a rolling container to improve water supply in developing countries. There is also Evan Gant's Rain Drop project, which, thanks to a system of plastic bottles mounted on house gutters, transforms them into small rainwater reservoirs, usable for many purposes. In this case, nothing is thrown away: neither the bottle, which is reborn to a new life, nor the rainwater, which becomes a renewable source. There is yet another way to practice ethical reuse: producing unique pieces from waste. Artetecnica, with its Design with Conscience project, creates flower vases, glasses, and chandeliers from glass bottles that are cut, sandblasted, and assembled.

A second way to reuse is the production of design objects manufactured in series from other objects: a now-historic example is the lamp by Livio Castiglioni and Gianfranco Frattini, the *Toio*, created in 1962 from a vacuum cleaner plastic tube with small fluorescent lamps placed inside. There is an entire set of actions that can be conceived as the operative principles of reuse design. As Pulvirenti further observes, it is true that, very often, this kind of design does not stem from a traditional project. It is enough to come into contact with the object to be reinvented to receive from its form all the useful information to rethink it. It is a design where the conception process is immediately tied to the hand. The first principle of this type of design is the manipulation of the object: “[v]ery often this type of design does not require traditional conceptualization with drawings, sketches, or other, but direct manipulation of the objects to be reused, a manual observation turning and flipping the object in the hands.”⁵¹ A second principle is decontextualization, that is, the way of changing the intended use of an object to create another. To give just one example, think of bottles used to make lamps. The last principle is fragmentation, that is, dividing objects into parts to make a new object.

Up to now, we have mentioned cases where an object changes its intended use to acquire another, but reuse design can very well be done while keeping the object's function. If its context changes, that does not mean its function ceases. Take the case of fruit crates: they are containers that, once emptied, can become shelves! The same conceptualization process is found at the basis of making chairs and armchairs from car seats: they keep their function but change context. But it is precisely when an object's function changes that reinvention becomes exciting. As we said: to reinvent is to look at the object differently. It is imagination in power—or the power of imagination—which, as Munari says, is “the means to visualize, to make visible what fantasy, invention, and creativity think.”⁵²

To change the way we look at an object, we can focus on its shape, its

⁵¹ Pulvirenti, E., 2009, *Design del riuso. Quando un problema diventa una soluzione*, Doria di Cassano allo Jonio (Cosenza), La Mongolfiera, p. 32.

⁵² Pulvirenti, E., 2009, *Design del riuso. Quando un problema diventa una soluzione*, Doria di Cassano allo Jonio (Cosenza), La Mongolfiera, p. 45.

transparency, its modularity, its resistance, its malleability, its rigidity, the presence of holes, etc.: these are all properties of the object that can trigger an inventive cycle of images, to use Simondon's expression from *Imagination and Invention*⁵³.

These properties can be combined with one another to reuse objects. There is, moreover, an entire history of design that is an alternative to innovation—a design that, however, does not oppose the industrial logic of design but stands alongside it with new ways of creating design objects. For example, Victor Papanek proposes “an anti-consumerist rather than anti-industrial vision, which takes a strongly ideological stance as it postulates a design culture as the representation of a social and economic model alternative to current standards.”⁵⁴ In this context, Bruno Munari must also be mentioned, who, in *Le macchine di Munari*⁵⁵, proposes the logic of play as the basis for creative conceptualization founded on the assembly of parts, as a possible principle of redesign. Charles Eames also designed his house-studio using components already existing and available in commercial circuits. To quote Cinzia Picchioni⁵⁶, these are all tips for not buying but for reusing. They can be applied by organizing ideas starting from the objects to be reused. First of all, the plastic bottle—our omnipresent waste. It has a changeable shape and transparency, two elements to exploit from the perspective of reuse. If you press bottles and place them side by side on a metal bar, you get a very original and ethical coat rack. If you exploit its resistance, you can create partition walls or even economical and exceptionally transparent houses. The most widespread use remains that of employing them to make lamps: cut, frayed, assembled, they become sources of light to reinvent space. In this case, the object may lose not only its function but also its integrity and shape to exploit one property of its material—transparency. The lamp becomes the best object of inspiration for reuse: it inspires containers of all kinds. All you need is a low-voltage light source to have efficient and decorative objects.

The second object—or rather, material—that we will analyze is fabric. There is an entire long-standing tradition of fabric reuse: patchwork is the best object-based result that can be obtained from joining old pieces of fabric taken from worn or unused clothing. In this case, the color of the fabrics is exploited and explored to create new objects. Reuse design truly began with fabrics: clothing, bags, lamps, ottomans, armchairs, and a whole series of objects born from textile industry waste. Like fabric, cardboard lends itself to many uses: there is an entire series of armchairs and seats made from rethought and reused cardboard.

Another property to exploit is the sound an object can produce. The Italian musical group *Capone e i Bungt Bangt* reuses plastic bands, wrenches, curtain rods,

⁵³ Simondon, G., 2008, *Imagination et invention (1965–1966)*, N. Simondon (ed.), J.-Y. Chateau (intro.), Chatou, La Transparence.

⁵⁴ Pagliero, A., 2007, *Redesign. L'oggetto ritrovato*, Pescara, Sala, p. 60.

⁵⁵ Munari, B., 2001, *Le macchine di Munari*, Mantova, Corraini.

⁵⁶ Picchioni, C., 2013, *Consigli contro gli acquisti. Consumare meno e vivere meglio con la semplicità volontaria*, Torino, Edizioni L'Età dell'Acquario.

a vacuum cleaner tube, and the cup of a shock absorber to produce sounds like those of the double bass, xylophone, transverse flute, and tubular bells. Now, in the contemporary world, the omnipresent waste is electronic. The Economic and Social Research Center *Occhio del Riciclone* notes that “the life of computers has shortened significantly in a very short time [...]. How can we get rid of computers? How can we recycle their parts? [...] It is in this context that [...] trashware is born, a neologism that designates a reuse practice that can take two options: the reuse of discarded hardware or the elimination of old PCs as special waste. Trashware fruitfully reuses decommissioned computers destined for disposal: they are practically computers recovered from the trash that are reassembled for socio-cultural utility purposes.”⁵⁷ But reuse, as we have seen, is not only an economic and ethical practice to follow in the field of design. It has also been employed in art: one can cite the case of Dada, Surrealism, and later Manzoni and Burri.

Let us finish by looking at a contemporary case, straddling design and pure art.

5. Reusing the Object and Its Components: The Case of Rondella

The reuse of objects and components of objects became a common practice starting in the 20th century. The obsolescent object or its parts become works of art in several ways:

“Assemblage is its use as a material element to be composed from abstract or natural patterns; insertion is its connection to other materials according to the artist’s free choices; camouflage and/or transformation is its hidden use so as not to appear as what it is; and finally, reproduction is its representation as the object of a different creative operation”⁵⁸.

The artists of the time (Picasso, Manzoni, Duchamp...) used waste or objects deprived of their function to create unique pieces. But this uniqueness is not the same as that of objects produced by Artecnic, which share a common project, the same concept: they are unique because the idea embodied in them cannot be reproduced, and that is why they are works of art. It is the same process as in ‘poor art,’ minimal and trash art—that is, the art ‘of reversing the meaning of the word wreck; by closely observing the shapes, colors, and materials of our waste, it may be possible to consider and measure the behaviors of individuals and society, to reflect on the mountains of polluting garbage that grow exponentially and suffocate our planet’⁵⁹.

⁵⁷ Centro di Ricerca Economica e Sociale dell’Occhio del Riciclone (ed.), 2009, *La seconda vita delle cose. Il riutilizzo, nuova frontiera per la gestione dei rifiuti*, Milano, Edizioni Ambiente, p. 133.

⁵⁸ Pulvirenti, E., 2009, *Design del riuso. Quando un problema diventa una soluzione*, Doria di Cassano allo Jonio (Cosenza), La Mongolfiera, p. 24.

⁵⁹ Appiano, A., 1999, *Estetica del rottame. Consumo del mito e miti del consumo nell’arte*, Roma, Meltemi, pp. 158–159.

Thus, straddling art and design, an Italian artist, Rondella⁶⁰, creates little robots that do nothing—that is, with the sole function of decoration—using components from worn-out, broken, dismantled, discarded technical objects. Rondella is a mysterious artist, as they do not reveal their given name. After losing their job due to the economic consequences of the Covid-19 syndemic, they reinvented themselves by exploiting their qualities as a multifaceted artist. Their passion for old, worn, obsolescent objects, which they found everywhere (at home, on flea market stalls, in the trash), led them to invent a true profession: rescuing technical objects or at least their components, which, reimagined and manipulated, become the eyes, arms, legs, bodies, heads, and accessories of their robots. Rondella thus rediscovers an ancient art: that of our grandparents who, during the war, made real toys out of metal boxes, cardboard, etc.—a practice still widespread among children in the Third World. Here, these objects do not serve as toys but as decorative pieces, although the principle remains the same: playing with waste, which, as Appiano says, is ‘the testimony of the traces of time and space.’⁶¹ Moreover, around their robots, Rondella builds a true fantastical world: the little robot is indeed ‘endowed with speech,’ as Rondella invents a story for each one, which may well be accompanied by photos (a photo-novel), sending amusing yet deeply ethical messages. Furthermore, Rondella is a committed artist who collaborates with the association AI.MCTO, which supports children affected by a rare genetic pathology, Multicentric Carp Tarsal Osteolysis. On this subject, on their Facebook page, Rondella recounts the story of a child from Geneva whose dream they fulfilled: a little robot resembling them, that is, with some small joint problems. In addition, Rondella stimulates their own inventiveness and that of the youngest by sending a personalized, ethically sustainable little robot in response to the drawings they receive. With Rondella’s enterprise, as Appiano notes, ‘we glimpse the aesthetic and creative potential of an art that, like a dreamlike X-ray, exorcises decay through wreckage [...] and illuminates the intimate desire not to start from scratch every day, but to rediscover daily space with the instruments of a primitive demiurge—the pieces of wood, the remnants, the waste and debris forgotten by history—for the construction of a personal cabinet of curiosities.’⁶²

6. The principles of reuse

Now, to return to the general discourse, there is a whole series of actions to undertake in order to ethically reinvent an object, to make it reborn or give it another life. Simondon [MOU1.1] considers that an object is a human invention that embodies in its functioning a mental schema. To reinvent through reuse, one must rethink this schema, which means rethinking a functioning according to a new circular economy of invention. Thus emerges a true method of reinvention with its rules and stages:

⁶⁰ Site officiel, <https://www.rondella.it> (last consultation).

⁶¹ Appiano, A., 1999, *Estetica del rottame. Consumo del mito e miti del consumo nell'arte*, Roma, Meltemi, p. 10.

⁶² Appiano, A., 1999, *Estetica del rottame. Consumo del mito e miti del consumo nell'arte*, Roma, Meltemi, p. 161.

relearn to observe—that is, disrupt the traditional way of apprehending the object; rethink it—that is, develop a new hypothesis about its potential function; manipulate it, make contact with it, get hands-on; and finally realize it, bring it back to life, the final stage of this new discourse of method. To look again, to rethink, to manipulate above all, to realize—these are matters for artisans, artists, designers, but above all they are human matters, those of a human rediscovering the world, coming to be reborn, rediscovering themselves as a child. Indeed, children are often the best reusers of waste. Our future hope.

7. Educating for Reuse: the Example of the ‘Angelo Fortunato Formiggini’ High School in Sassuolo

It is precisely to the new generations that the project of a group of art history teachers from the ‘Angelo Fortunato Formiggini’ High School in Sassuolo, near Modena in Italy, is addressed. In ... the Italian Ministry of University and Research established the requirement of school-work alternation in secondary schools. Within the framework of this law, this group of dedicated teachers put their skills as architects, engineers, and artists at the service of a restoration project for their school building, with the support of students and using recycled or discarded materials. Thus, pallets were transformed into public benches installed in the school gardens, which host during breaks all those who want to rest, but especially students with disabilities who spend their time doing outdoor activities; a satellite dish became the support for the logo of an association for abandoned animals managed by one of the teachers coordinating the project; colorful fabric scraps were used to decorate a bench and the wall above a school window, creating a cheerful and informal effect.

As Simondon rightly foresaw, the advent of a technical culture is a matter for the young, who must be educated—and educate themselves—in techniques, in their understanding, in respect for objects, in a benevolent contemplation followed by action, namely their maintenance and recovery to prevent obsolescence. This is democratic education, lessons drawn from an object that radiates wherever it is found; it is the education of a society aware of its finitude but not based on ‘the heuristic of fear’ in Jonas’s sense to apply the principle of responsibility, rather on the active and thus informed construction of new cognitive frameworks regarding technology and its objects—our allies in building a better future world: ‘deepened technology must learn not only to invent the new, but to reinsert the old and to update it so as to make it a present under the call of the future. [...] World is rich.’⁶³

⁶³ Simondon, G., 1983, “Trois perspectives pour une réflexion sur l’éthique et la technique”, in *Sur la technique (1953–1983)*, J.-Y. Chateau (ed.), Paris, PUF, p. 75.

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