Waste as property: The law’s role in maximising value

The concept of waste is explored against the background of the law of property. Drawing on the work of Eduardo Peñalver, this article addresses how waste is a form of property, property for which the law heavily regulates disposal. Conceptualising waste in such a manner is possible, as it is possible for property to have not only a positive value but also a negative value. How the law regulates the disposal of our unwanted property has important ramifications for the waste cycle. Restricting the disposal of waste can encourage practices such as recycling, and ensure waste is directed to the waste streams in which maximum value can be extracted therefrom. This contribution aims to illustrate the above through the example of mine waste, as the value of mine waste is context-sensitive. It is possible for this form of waste to take on a positive or a negative value, depending on context. Furthermore, it is crucial that such waste be adequately regulated, to ensure the extraction of maximum value, both economic and social.

**Significance:**
- Waste can be conceptualised as property, and the law strictly regulates the disposal of all forms of property. The law can play an important role in ensuring that maximum value is realised from waste.

**Introduction**

It is doubtful that the average person views the contents of their bin, or their bag of recycling, as their property. There certainly is no emotional attachment or sentimental feeling that makes one point to a soiled food container and say ‘that is my property’. But one’s lack of emotional attachment to or economic investment in property is of no interest to the law, which regulates ownership of our property, including determining the exact point at which such ownership can be said to begin and be terminated. As far as the law is concerned, the food waste in your bin is as much your property as your laptop, and your ownership thereof can only terminate in the circumstances prescribed by law.

The concept of waste as property in respect of the value of waste is explored here. The paper addresses how the law, rather than empowering owners to dispose of unwanted property as they please, strictly regulates how property may be disposed of, from soiled food wrappers to obsolete electronics. In this respect, the law seeks to ensure waste achieves its maximum value. Maximum value is sought through reducing the negative value of waste that lacks the essential qualities necessary to be reclaimed, or through ensuring that waste is recycled and the valuable components thereof are used to their full potential.

First, the concept of value in the law of property, in particular the different kinds of values that property can accrue, is discussed. Of central concern is how property can come to accrue a negative value for its owner. Then, the law’s strict regulation of how we may dispose of our property is explored, which is vital in ensuring the negative value of waste is reduced and any potential positive value is captured. Finally, the contextual nature of the value of waste is discussed, with a particular focus on mine waste.

**Property, value and disposal of waste**

An object must have use and value to fall within the scope of the law of property (i.e. be considered a ‘thing’, as such objects are referred to). Value, however, need not be purely a positive economic value. It can also include a positive sentimental value, as well as a negative economic value or a negative sentimental value. An example of property with a positive economic value and a positive sentimental value would be expensive jewellery received as a gift from a partner. However, such property can take on a negative sentimental value should the relationship sour and end. Property with a negative economic value (in that it takes up space while providing no economic benefit), but a positive sentimental value, could include certain family heirlooms. Finally, waste such as soiled food containers would be a clear example of property with both a negative economic value and a negative sentimental value.

A consideration of the above role of value makes it clear that waste can fall within the scope of property law. It also serves to illustrate the manner in which the law strictly regulates how we may dispose of that waste we no longer want. It is difficult to conceive of how one may (legally) dispose of one’s unwanted property outside of the prescribed means, such as municipal collection of residential waste or dropping off one’s recycling. It is true one may leave property which may be quickly claimed on the sidewalk, or other public place, in which circumstances property may be considered abandoned, and become the property of the person who takes it away. However, the law does not countenance the depositing (dumping) of objects that are unlikely to be claimed. An old couch, for which someone else may have use, is one thing. A wholly broken and soiled couch, which it will then fall to the municipality to remove at cost to the public purse, is another. In the latter case, the owner must either take the unwanted object to the appropriate disposal site or pay someone else to do it. Abandonment can function to allocate ownership to the person who takes unwanted property, but not as a means by which an owner may simply avoid and pass on the costs of disposal to the public purse.

The definition of ‘waste’ in South African law is wide, with section 1 of the National Environmental Management: Waste Act 59 of 2008 stating 'waste' includes:
The nature of the waste. The definition of ‘waste’ in the by-law mirrors
the Integrated Waste Management By-law requires anyone who generates
for the details of waste disposal. For example, the City of Cape Town’s
finally does come. A single dead leaf would serve as an example.4 However, once dead
leaves accumulate in one’s garden, and are put into a large pile, the pile of leaves itself can accrue a negative value. As garden refuse, an owner is obliged to dispose of such a pile in a particular fashion (separately from normal residential waste, as noted above). Once again, negative value stems from the duty to store, even for objects that would otherwise have a neutral value as an individual unit.

The disposal of solid waste is an area over which local government exercises legislative competence in terms of Part B of Schedule 5 of the Constitution.7 As such, one will need to consult municipal by-laws for the details of waste disposal. For example, the City of Cape Town’s Integrated Waste Management By-law requires anyone who generates waste to follow its rules in the disposal of any waste, depending on the nature of the waste.8 The definition of ‘waste’ in the by-law mirrors the definition in the aforementioned Waste Act. Regarding normal waste, section 4 of the by-law requires separation of recyclables and non-
recyclables, and disposal of that waste through either the City’s own waste removal services or an accredited service provider. Recyclables and non-recyclables must be disposed of separately, as must different categories of waste such as garden waste. Only by complying with these obligations does the law allow an owner – the waste generator – to terminate their relationship with property that constitutes waste.

How property may accrue a negative value varies, depending on the nature of the property in question. In respect of immovable property (land), the duty to maintain immovable property is a primary driver of negative value where the land holds no other positive benefits for a landowner.9 For example, property may accrue a negative value due to the locale in which it is located.10 An inner-city building surrounded by urban decay may accrue a negative value, in that the owner cannot derive any benefit therefrom (especially if unlawfully occupied) while the property continues to be a financial burden.11,12 A property developer may purchase a piece of land in the hope of clearing it for a new development, but be denied permission to demolish an otherwise derelict building that has been accorded heritage status.13 A landowner may have a mining right granted over their land in favour of a third party, who then fails to rehabilitate the land.14 Land in certain areas may also accrue a negative value due to the growing impact of climate change. For example, drought and wildfire may leave the locale vulnerable to mudslides when rain finally does come.15,16

In respect of movable property (i.e. anything not attached to land), such as your pen, laptop, or car), property accrues as a negative value for different reasons. Unlike immovable property, negative value will likely not stem from taxes or an obligation to maintain.17 One is, for example, perfectly entitled to not service their vehicle (although its inevitable lack of roadworthiness will preclude one from using it on public roads). Rather, the negative value of movable property will flow from the fact that it takes up space, and the duty to store that rests on the holder thereof. Perhaps the best example of the duty to store causing property to accrue a negative value occurred in the wake of lockdowns following the global spread of COVID-19.18 The cost of storing oil in the USA was

Waste and the law of abandonment

Waste provides the most obvious example of how the law strictly regulates the circumstances in which we may dispose of our unwanted property. It is difficult to conceive how one may simply dispose of movable property that qualifies as waste outside the disposal streams prescribed by law. That is, without falling foul of the provisions of the Waste Act or local by-laws regulating littering and dumping, such as the City of Cape Town’s Integrated Waste Management By-law discussed above. The one exception, as noted above, is the depositing of objects in a public place, such as a sidewalk, which may be claimed quickly by people who may find it useful, such as old but usable furniture. Otherwise, if one wishes to dispose of property which would not be claimed readily, the only means through which this can be done is to follow the prescribed rules, which inevitably requires cooperation with a third party. Effectively, abandonment of property, in the true sense of the word (being a purely unilateral act), operates in a narrow set of circumstances to allocate ownership to parties willing to take responsibility for unwanted objects.2 While the claimant of unwanted property may acquire ownership of unwanted property, abandonment does not serve as a defence against a charge of dumping or littering for the original owner.

According to the law of abandonment, all that is required for the abandonment of an object is physical relinquishment of possession coupled with the intention to no longer be the owner.3 The rule effectively remains unchallenged from its Roman law and Roman-Dutch law origins.4 However, as aforementioned, the rule finds its application limited in contemporary society. In a society which produces increasingly larger amounts of waste, that is increasingly unwilling to reuse and repair when new items are increasingly disposable5, strict rules for the disposal of unwanted objects are necessary. Where these rules are followed, such as the depositing of an unwanted item in a rubbish bin or at a dump, it can be assumed that the law has the intention to give up ownership of such an object.6 The doctrine of abandonment’s continued relevance only appears to operate in circumstances in which another person lays claim to, and is willing to take responsibility for, a particular object.7,8 Even the unlawful disposal of an object meets the requirements of
abandonment; until a third party takes possession thereof, the law considers the original owner the responsible party.

It is important to note that, in respect of certain categories of property, there may be no intention to relinquish ownership, even if the object is deposited in a bin or directed to the correct waste stream. Sonneku8 uses the example of an artist who puts his sketches in the rubbish to be collected by the municipality. The artist likely intends that the sketches will be eventually destroyed or irretrievably lost in a landfill, with no intention that a passer-by may come along and claim it from his municipal bin.8 A more modern example may apply to the disposal of a computer’s hard drive. The owner of the hard drive likely does not intend that another party take ownership thereof after disposal, and attempt to retrieve data therefrom. Rather, the owner intends the party to which the old hard drive is directed to take the necessary steps to destroy it.

Destruction provides a unilateral form of disposal in respect of some objects of property.21 But, for a private person, such an act would be limited to burning one’s personal papers in a fireplace, for example, given the limited effect such an act has on third parties. Many categories of property cannot simply be destroyed by private individuals in a way that completely stops them taking up space. One cannot simply start burning one’s unwanted property without tainting foul of laws on air pollution and causing a nuisance for one’s neighbours.22 The right to destroy – as with the right to abandon – is heavily circumscribed.

What is critical about the law’s approach to the disposal of unwanted property is that it can be used to instil important values into society at large.3 Strict rules for the disposal of certain kinds of property, such as e-waste, can assist in the development of a circular economy.3 With 2 billion hard drives requiring disposal in a landfill, electronic waste is a significant issue.23 From the general residential waste stream is an overall good, especially in view of the potential to not only remediate mining land through the use of these plants, but also create an agricultural sector to support surrounding communities, where such a sector would otherwise not exist.24,25 Again, what is important is the potential to recover lithium from lower-grade materials, meaning tailings can be re-mined rather than simply becoming useless mine dumps.26 It would also avoid the exorbitant costs of opening new mines (estimated at AUD$150 million to AUD$2 billion) as well as the environmental harm that results therefrom.27

A recent initiative by the Resilient Futures Community of Practice explored the possibility of remediating mining land by planting of fibrous plants (for example, flax, hemp and bamboo).28,29 The initiative has the potential to not only remediate mining land through the use of these plants, but also create an agricultural sector to support surrounding communities, where such a sector would otherwise not exist.30 Again, property which would at one point have a negative value – land that would effectively be waste – can accrue a positive value. In fact, the initiative goes further, effectively seeking to prevent such land accruing a negative value in the first place through introducing fibrous plants during the life cycle of the mine rather than waiting until operations have officially ceased.31,32 Such an initiative is critical in a context in which mining land is rarely effectively rehabilitated, and may otherwise remain a threat to both human health and the environment.31,32

What is evident is that the value of waste – from e-waste to mine waste to mining land – is forever fluctuating, depending on technological advancements and human initiative to tap into the value of waste. What may otherwise be waste with a negative value one day, could be a resource with a positive value the next. It is vital that initiatives such as the Community of Practice: Waste to Value evaluate and identify the optimal means through which a positive value can be realised from negative-value property.

**Conclusion**

Regardless of its value, waste is property. Waste is property because – among other things – it has value, although that value more often than not is a negative one. How it accrues this value depends on the circumstances and nature of the waste, but especially in the case of movable waste, the negative value stems largely from the fact that it takes up space. An owner has a duty to store the waste, at least until such a point at which it is directed to the correct waste stream. The law of abandonment effectively only operates in limited circumstances, often to settle ownership disputes over useful property that may be readily claimed, in a modern society that needs to regulate the disposal of waste strictly.

Examining waste through the lens of property law provides an otherwise neglected perspective. As Peñalver explains, the idea that one is simply permitted to terminate one’s relationship with property at will is largely an illusion, at least in contemporary society in which the law strongly dictates the terms on which property may be disposed of. The law has a unique role to play in ensuring that the optimal value is realised from waste (both that which needs to be recycled and that which is destined for the landfill), and it does so through regulating the circumstances in which our relationship with property can end. An owner of property is not simply entitled to terminate their relationship with an object. This observation applies regardless of whether the property still has any residual positive value (such as an obsolete but otherwise functioning cell phone), or has accrued a negative value due to the duty to store it (like the contents of our municipal bins waiting for collection).

What is critical in realising the optimal value of waste, is ensuring effective enforcement of existing laws, as well as providing support to import role players in the waste sector. The law can simultaneously require that waste be directed to the proper stream, while empowering parties such as waste reclaimers, who play a critical role in directing waste to the proper stream where enforcement of existing legal rules falls short.
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There are no competing interests to declare.

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