

'Land is not a mat that can be rolled up and taken away': A dialogue on Li's materiality of land as defining land as property for its assembly

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Abstract: This essay uses a dialogue as a way of articulating complicated ideas on Li's (2014) paper to relate the notion of materiality of land-to-land grabbing and other dimensions of "materiality" invested by various lines of research on land. The work of Li is used as it mentions the idea of "inscription" and the use "title deed" that are "material" in a physical sense that conveniently articulates with the argument that the cadastral boundary is the "form" of land as real property rather than an open access resource, a situation which does not exist in most real-world situations. The treatment of a land boundary in terms of property rights in neo-institutional economics is discussed. The significance of land boundary re-delineation in global development, as a subject for those who employ the concept of "materiality", is highlighted by itemizing specialisms in the professional division of labour in the land market.

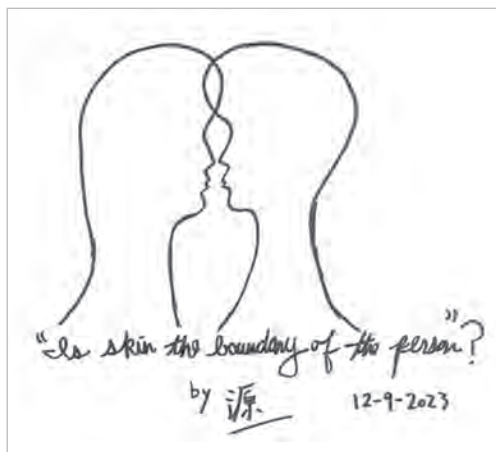
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INTRODUCTION

Johnston (1982, p. 125), without mentioning "land" specifically, defines *human geography* as "the study of the spatially varying characteristics of the conditions of man's occupation of the earth's surface, focusing on this aspect of socio-economic reality." His definition is both physical and social and is relevant for understanding a discussion of the "materiality" of land in a global land rush (or land grabbing) as raised by Li (2014).

The following imagined dialogue between a tutor, T, and student, S, a technique much used by classical political thinkers and recently by geographers, say Pearce and Hermann (2010), and planners like Lai (2014, 2018, 2021, 2023), Vanoutrive (2017), Lai et al. (2019) may help highlight the versatility of the notion of materiality.

This dialogue on materiality is intended to assist readers who find it very hard to understand the "materiality of land", as an increasingly popular concept in the research literature, because previous authors rarely explained what "materiality" means, instead assuming that everyone understands what it means. Li's (2014) work is the most useful because it raises issues with the various dimensions of land materiality.



*Skins as physical and social
boundaries of human persons?*

A DIALOGUE ON LI'S MATERIALITY OF LAND

T: This passage of Li is very important for discussing Land as a global issue.

First, what land is for a farmer is not the same thing as for a tax collector. Land (socio-economically) may be a source of food, a place to work, an alienable commodity or an object of taxation. Its uses and meanings are not stable and can be disputed. Second, *its materiality, the (socio-economic) form* of the resource, matters. Land is (fixed and it is for example) not like a mat. You cannot roll it up and take it away. *It has presence and location*. It has an especially rich and diverse array of 'affordances'—uses and values it affords to us, including the *capacity* to sustain human life. Third, *inscription devices*—the axe, the spade, the plough, the title deed, the tax register, maps, graphs, satellite images, ancestral graves, mango trees—do more than simply record the presence of land as a resource: they are integral to assembling it as a resource for different actors (2014, p. 589, italics and brackets author's).

S: What actually is *materiality* of Land? I searched the web and have got this definition of materiality, which is "the quality or character of being material or composed of matter." According to this definition, it would seem that the materiality referred to in Li (2014) is about immateriality. For if Land is a substance or material like a mat, it can surely be rolled up and taken away!

T: Obviously, Li (2014) is not talking about Land as mere "substance", or else she would be talking in purely physical, rather than in terms of human geography. Materiality in the passage should carry the socio-legal meaning of "the quality of being relevant or significant." She must be saying that land is relevant and significant to organized human life.

S: Granted that relevance is at stake, Land's relevance is seemingly circularly defined in terms of its *capacity* to sustain human life. I find such an ecological, rather than simply physical understanding persuasive, but even so...

T: Well, let us say, in any case, that capacity is not an *object* like a mat.

S: I am not sure. Surely such capacity can be both physically as well as institutionally destroyed. I recall that in classical Mediterranean warfare, the destruction of the enemy's harvest both destroyed the physically productive source for a year or more and, therefore, threatened the survival of the society that depended on it (Hanson 1998).

T: Even in your Mediterranean case, it is clear that "presence and location" cannot be destroyed. Barren it may have been made, but the land was still there and still belonged to its owner. That is institutional, thus relational and invisible. This is a significant and relevant character of Land.

S: I am not sure about "presence". What of Roman general Scipio's 'salting' of Carthaginian fields so that nothing would grow? Were the 'fields' still present although infertile? As far as *indestructible* location is concerned therefore, is this so only when we are talking about Land as *property* that each unit (lot/plot), being locationally unique, must be delineated to demarcate one plot from another or, using Li's terminology used in her third point, "inscribed"? Is it just that destroyed plants, crops, fields or infrastructure like granaries, mills and presses are still someone's or at least potentially someone's?

T: Li (2014) is using the *philosophical* concept of “form,” i.e., the focus is what gives Land its “form”, treating form as “materiality”.

S: Sorry, I still cannot see what that “form” of Land really is. Perhaps, it is the impossibility of removing it, insofar as it still endures as possessed or possessable, used or usable whether barren or productive? Many things, like human dignity, cannot be removed either.

T: However you want to come at it, the key point is that “materiality” is an important inclusive concept in human geography. As explained by Bakker and Bridge (2006, p. 8), the concept should be “simultaneously physical and cultural”.

S: I agree that Land as a concept is physical and cultural!

T: Land assembly is the focus of discussion. The term “assembling” appears 5 times in Li’s work. The other name of land assembling this is the “land grabbing” of rural and peri-rural land in developing countries by international investors.

S: My attention has been drawn to a very interesting paper by Smith and Mark (2003, p. 411) on the ontology of landforms, pointing out that a mountain or hill, as a natural landform, is distinct from organisms (like crows) or artifacts (like chairs, cups) because they have “complete boundaries that enclose them and separate them from their environments”. Mountains and other geographical features on maps have no clear boundaries. On maps, they appear as big or small letters, tight or spaced-out contours. We can tell their locations relative to other physical features (like valleys) but really cannot see where they join or separate save, if fuzzily, through human attributes like ‘watershed’, ‘ridge line’, etc.

T: That paper reminds us what really constitutes the form of land (as physical matter). “Complete boundaries that enclose” is the key. What we may say is this: land as a physical resource is *not yet* “land property”, “real estate” or simply “property” until it is unitized and given a *de jure* and locationally unique (cadastral) boundary, not open ended as a line but in the form of a loop of some shape, whether in isolation or next to another/other units of property. The cadastral boundary is the form of land, like the soul is the form of a person.

S: There are instances where the distinction between land and artifacts is blurred. Take the example of a World War II gun battery. We have guns and emplacements, objects and structures including range finding buildings, which are definitely not living organisms. Yet as fixtures, they are legally part of the land. To say that their boundaries are their footprints seems artificial to me!

T: The military site, if once permanently occupied as a base, usually had a clear official border formally mapped and physically protected by barriers. That the map record and physical boundary signs are gone is another matter.

INTERPRETATION

The dialogue shows that the dictionary definitions of “materiality” as “matter” and legal or other types of “relevance” understood by the ordinary man or woman are not able to accommodate its current academic geographical use. The former will limit it to physical geography, techniques of land surveying. The latter, being social, cannot deal with what Li seeks to achieve by treating land as *resources*, not so much as *real property*. Nor does Li’s (2014) reference to “form” or “matter” fall within the ambit of Aristotelian metaphysics as that defines a “substance”.

T brings out the concerns of Li with Land as resources in terms of capacity, presence and location. The unifying principle for all these features of Land is “assembling land” “as a *resource* for different *actors*” (Li 2014, p. 589, italics added), which points to the need to operationalize the concept of materiality in discussing land in the process of assembly, and as involving various types of professional people, as discussed below. Obviously, Li sees various inscriptional devices as pivotal in such a practical (material) process. T may wish to add the prime devices, glossed over by Li, such as the title deeds and cadastral maps that are products of surveying. They are referents for such activities as squatting, expropriation, land readjustment (Lai et al. 2022).

Here, it should be pointed out that Li’s (2014) position differs from the narrow “thoroughly materialistic” view of matter adopted by Anderson and Wylie (2009), who reject the idea that “materiality has properties of shape consistency and obduracy that are assumed to define the state of a solid or the element of earth.” This rejection throws out proprietary boundaries as *de jure* and *de facto* rigidities in legal and social reality, or as “forms” of land as property units.

T’s statement that the cadastral “boundary is the form of property”, capitalizing on the point of Smith and Mark (2003) that natural land form (materially physical resources) is the idea this essay seeks to bring out. Land becomes property only after it is defined as property by demarcating its boundary. The property boundary is to unitized land like skin [Figure 1] is to a human person in terms of social contact and distance, following the line of thinking of Smith & Mark (2003) that organisms have “complete boundaries that enclose them and separate them from their environments”. Though we may say that even if the skin is not a good defensive boundary of a person, it is a very sensitive and meaningful one!

Coasian Neo-Institutional Economics (NIE), which regards government intervention in, or court adjudication of land use conflicts as options apart from private settlement, denies the polarized Pigovian non-interactive understanding (Lai 1996, 1997, 2007), and treats the private front as a negotiable fence that can be moved forward or backward depending on the values of respective land use activities. To test the effectiveness of government zoning in statistical modelling, the zonal border line is again reduced to a point, or rather to a binary matter of 0 or 1: whether it exists or not. (Lai and Davies 2020, p. 425).

The symposium “Property: A Bundle of Rights?” edited by Klein and Roberstson (2011) had four NIE papers that mentioned boundaries. The editors saw that a land boundary was part of the “exclusion/boundary/in rem/dominion formulation.”

Claeys (2011, p. 208) mentioned “boundary” twice in relation to exclusion against invasion of one’s land. The locus of such boundary is not in mind.

Ellickson (2011, p. 220) mentioned the upkeep of the cost of erecting a fence along the “common boundary” under the law but the focus is not the alignment of the common boundary but the rights/duties of owners on either side.

Katz (2011, p. 239) recapitulated an earlier statement “The standard property right, on an exclusion-based or boundary approach, consists in a norm that protects the boundaries around a space or object so as to exclude the whole world but the owner” and that the “the owner has a gate-keeping function.” How that gate, door, or portal keeping function is affected by the shape and location of the boundary is not in sight.

Smith (2011, p. 286) addressed directly the locus of property boundaries:

Part of the point of placing property boundaries where they are is that complementary attributes—those whose uses impact each other a lot—will be inside, and the boundary will to the extent possible not involve intense interaction between attributes inside and those outside the boundary.... This is what a modular structure means in a system that is nearly decomposable: intense interactions on the inside of components that are mostly hidden from other components that are (relatively) weakly interacting.

A boundary fence or wall is to keep “sticks” as complementary attributes inside one’s property and its location is to minimise interaction of these sticks with things outside the fence or wall. Again, the boundary serves to set apart one’s property from the rest of the world. That *shape and location of the boundary is in itself a kind of “stick”* (i.e., as an integral part of, rather than merely a pigeon hole for, the bundle of property rights of land) is not at issue.

DISCUSSION

What constitutes “materiality” is debatable but the discussion above highlights it as a convenient human geography reference to various disciplines in land development with very formal methods, such as land economics, surveying and real estate development.

Any argument about “materiality” is also one about the nature of geography (Unstead 1907; Johnston 1982). Unstead (1907, p. 21) sees geography as concerning the “connexion between man and his physical environment.” This should be wide enough to accommodate materiality in whichever sense.

The notion of materiality is as useful for dealing with *assembling* (“grabbing”) land as with *partitioning* and *segregating* land beyond mapping.

To deal practically with the physical, social, and economic transformation of land as a physical resource into property as a tradable asset, a host of paid specialists or experts has emerged during the “land conversion” process, in which land as a resource is unitized for commodification and exchange as an input or asset.

These remunerated experts, falling under the category of “actors” in Li (2014, p. 589), include:

- Surveyors (the first town planners), who plot and lay out land parcels for allocation to owners, draw up cadastral plans, and register land titles.
- Engineers, who form land physically as sites for development (including building construction).
- Project managers, who execute the construction of the building projects.
- Valuers, who appraise the value of land parcels and fixtures for property transactions and rating purposes.
- The police, who deal with violations of property rights and environmental law.
- Lawyers, who handle property transactions and disputes.
- Town planners, who regulate the uses and development of land through zoning and other methods.
- Developers, who seek to subdivide or assemble existing land lots for their conversion into higher value redevelopment or use.
- Agents for developers, who help with land assembly.
- Bankers, who finance land purchases and real estate development.
- Regulators (other than those in 7 above), who control various processes.
- Politicians, who mediate the interests of various parties.

These experts derive income from their involvement in the process. In the materiality of land literature in relation to housing or land grabs, they are generally grouped under the class of “rent-seekers” who engage in often corrupt rent-seeking activities to capture income by means of erecting barriers to the exchange and exercise of rights so that they can derive monopoly rent for themselves.

Sometimes a high proportion of rent comprises the income for some parties involved (notably agents for developers and politicians). However, most earn both rent and returns for their expertise, which help generate value.

Land grabbing, even if fairly conducted, may be pure transfers or redistributions of wealth from original to new owners. However, the process, as driven by investors, would add new value to land by substantially transforming its materiality physically and institutionally. How such new value is distributed or redistributed (in other rounds of rent-seeking, perhaps) and whether it is sustainable are major questions.

The expert categories non-exhaustively mentioned above show how materiality of land is *differentiated* into diverse professional streams of income as new values are generated and land is transformed into real property during the land conversion process, which, at the same time, is physical and institutional. This is a research direction that focuses on the transformation of materiality—surely a process of production conditioned by property boundaries as policy parameters or variables—and is worth pursuing.

The flexibility of the English language, which is excellent for connecting ideas, often leads to confusion. The terms “material” and “immaterial”, the subject of discussion, are cases in point. Added to the confusion in discussions in relation to land and development are the expressions “formal” and “informal”, as they can be used in a narrow technical or several common senses. “Form” can be contrasted with “matter” in philosophy, with “function” in biological science, or more generally with “manner”/“meaning”. “Formal” may refer to “form” in any sense, or be contrasted with “informal”, which may mean “unofficial” whether or not technically advanced or otherwise.

Davy (2020), in disputing the idea of “form follows function” in offering a “credibility thesis” of property that qualifies from Ho’s (2014, pp. 856-858), gave four meanings of the “form” of property. They are (a) “formal property as a mere shell for ownership”; (b) “*fontes iuris*” (sources of law); (c) “level of title formalization”; and (d) “bundle of sticks”. Davy left hanging in the air just what formally “property” (whether formal or informal) means. It is not just land or flat land or land with human activities.

The dialogue of this paper underlines the above by stressing the importance of cadastral boundaries as the “formal” (meaning “defining”, not the opposite of “material” in legal usage) nature of land as “property”, however “informal” (technologically imprecise as in the case of the Imperial Ming Chinese “fish scale atlas”) may be the boundaries thus established or recorded.

CONCLUSION

Land is not property until it is unitized by zoning in a generic sense. Any discussion of materiality of land as (real) property surely cannot ignore its boundary. Practically, ignoring it by a proprietor may lead to loss of one’s property; “professionally”, it is a matter of competence and due diligence as a regulator or proprietor; and intellectually, it is matter of one’s understanding and attitude towards property in the real world.

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