What do we see in museums?

Graham Oddie

Abstract

I address two related questions. First: what value is there in visiting a museum and becoming acquainted with the objects on display? For art museums the answer seem obvious: we go to experience valuable works of art, and experiencing valuable works of art is itself valuable. In this paper I focus on non-art museums, and while these may house aesthetically valuable objects, that is not their primary purpose, and at least some of the objects they house might not be particularly aesthetically valuable at all. Second: to what ontological *type* or *category* do museum objects belong? What *type* of item that should be featured on an inventory of a museum collection? I distinguish between *typical* objects and *special* objects. While these are different types of object, both, I argue, are *abstracta*, not *concreta*. The answer to the second question, concerning the ontological category of special objects, throws new light on various philosophical questions about museums and their collections, including the question about the value of museum experiences. But it also throws light on important questions concerning the preservation and restoration of museum objects. [1]

I wish to thank the participants in the *Philosophy and Museums Conference* at the University of Glasgow for many helpful suggestions. In particular I owe a huge debt to Victoria Harrison whose careful and insightful criticisms forced me to revise a number of my views and arguments. I would also like to thank the Society for the Philosophy of Education for sponsoring my participation at the conference.

The question *what do we see in museums* has two aspects.

This first and more obvious is this: what is that we want from visiting a museum? What value is there in visiting a museum and becoming acquainted with the objects on display? This is a question in value theory. It is a question we could raise about any kind of museum, but for certain classes of museums, particularly art museums, the answer may seem rather more obvious than for others. We go to art museums to experience valuable works of art. If experiencing valuable works of art is itself valuable, and if you cannot have those valuable aesthetic experiences without experiencing those works directly, then the answer to the question about art museums seems almost self-evident. But while cultural history and natural history museums may well house some aesthetically valuable objects, that is not their primary purpose, and some of the objects they house might well be far from aesthetically pleasing or engaging. In this paper I focus on non-art museums.

The second, and less obvious, concerns the nature of the objects which museums collect, and display, and for the sake of the experience of which people visit museums. To what ontological *type* or *category* do museum objects belong? To put this slightly different, what is the *category* or *type* of item that should be featured on an *inventory* of a museum collection?

What I hope to show is that a certain answer to the second, somewhat less obvious, and purely metaphysical question, throws some new and interesting light on various other philosophical questions about museums and their collections, including the first question, about the value of museum experiences. But it also throws light on important questions concerning preservation and restoration.

1 The metaphysics of the museum object

The metaphysical question might well seem trivial. Surely the answer is obvious. Museums collect *concreta*, material particulars – like Tutankhamun's death mask, the Cyrus Cylinder, the largest known Tyrannosaurus skeleton, the Book of Kells – which are then arranged and displayed for people to see. So perhaps the simplest and most straightforward answer to the metaphysical question is this: the objects which are listed

in a museum's inventory, and for the sake of experiencing which we go to museums, all belong to the type of *material particular*. What else could they be? This rather natural answer I will call *particularism*.

Here it will be useful to make a brief excursion into the distinction between particulars and properties.

Particulars are characterized by their unrepeatability. Each particular sticks rigidly to itself. You cannot have two instances of one and the same particular, and no particular can be, or become, another distinct particular. A particular's history grows continuously and cannot be replaced by a different, distinct history. Particulars are, however, amenable to different *properties* in the sense both that they could have had different properties from the properties they acquire in fact, and that they exchange some properties for others from moment to moment. Typical examples of properties, or repeatables, include: colour, shape, density, texture, material composition. Besides these kinds of properties, which are all rather narrowly physical, particulars have biological properties (like being a member of a certain species, or genus); artefactual properties (like being a mask); historical properties (like having been crafted 2990 years ago); relational properties (like being the first or only one of its kind); aesthetic properties (like being strikingly beautiful); evaluative properties (like being the most valuable instance of its kind).[2]

I will often use the term *material particular* as well as the broader term *concrete particular.*

By *concrete particular* I mean the kinds of particulars that have spatio-temporal properties. Roughly speaking, at each moment it makes sense to ask of a concrete particular where it is located in space. Some have argued that numbers are particulars, but, of course, they are not concrete, let alone material, particulars. The number seven is not the kind of particular of which one can sensibly ask "where is it right now?". Numbers never have spatial location and their specifically *numerical* properties never

[2] I am thus using the term *property* rather broadly, not restricting it to the notion of a fundamental property, or what David Armstrong would call a *universal*. D. M. Armstrong, *Universals: An Opinionated Introduction* (Boulder: Westview Press, 1989).

change. (The natural number seven could not have been adjacent to any natural numbers apart from six and eight.)

By *material particular* I mean a concrete particular that has various physical features in addition to its contingent spatio-temporal features. If physicalism is true then all concrete particulars are material particulars. Perhaps a mind (although not a strictly *Cartesian* mind) would be a *concrete* particular, but since a Cartesian mind presumably only has mental properties it would not be a material particular. A material particular need not have *only* physical properties. The relation of various other properties that a material particular possesses – mental, social, axiological, aesthetic etc. – to the physical properties is contested. Physicalists think that all properties are, or reduce to, physical properties. But this is a controversial hypothesis and there are quite convincing arguments against it. (I myself reject it.[3])

A museum doesn't just accumulate random material particulars. Not any old piece of junk is worth collecting, or displaying, or going out of your way to see. The material particulars in a museum collection are chosen for one of two quite different reasons. They are chosen either because they are highly *typical* instances of some kind (usually a rather interesting kind); or because they are very *special* in some way. It is my thesis that these two different kinds of reason involve two different kinds of object, two different ontological categories, and in fact neither category is that of a concrete particular.

Consider the first kind of museum object, those that are chosen because they are typical. Suppose an item in a museum's collection is a specimen of the species *Deltochilum valgum*—a rather unusual dung beetle in Central America that has evolved to prey on the bodies of live millipeds rather than eat dung. The museum specimen manifestly should *not* be special in any way. An *unusual* specimen of that species—say an unusually large, or strangely colored or deformed one—should be rejected as inappropriate. To be a typical instance of its kind the specimen must maximize the number of properties it shares with other instances of that kind. A perfectly typical

[3] See Graham Oddie, *Value, Reality and Desire* (Oxford: Oxford University Press, 2009), chapter 6.

instance of a kind would instantiate all the properties that are shared by (almost all) members of that kind.

Now consider what makes a museum object of the special variety, special. Presumably that also has to do with the properties it has. But in this case the properties themselves have to be *special properties*. Often the item will be special by virtue of being the only one of its kind.

In both cases (the typical and the special) museum objects are chosen on the basis of properties that they possess. Now, a property is an entirely different type of entity from a particular. By contrast with particulars, a property is, as we say, a *repeatable* item. While no particular can be, or become, a distinct particular, distinct particulars can be instances of one and the same property: being a death mask, being of the species *Deltochilum valgum*, being cylindrical, being made from a piece of clay, being written on in Akkadian Cuneiform script. And the museum objects just mentioned, which people do flock to see, have properties like these.

Further, we experience material particulars in *virtue* of their having various perceptible properties. These considerations suggest a second and different answer to our question: that the object of a museum experience is a *property*, or rather a complex of properties. The *particularity*, or identity of the item which *has* the properties, and which we tend to think of as the object of our experience, doesn't really enter into the content of our experience at all. We could, for example, have a qualitatively indistinguishable experience if we were exposed to another particular with exactly the same perceptible properties. And if the typical specimen of *Deltochilum valgum* that is on display deteriorates or becomes damaged, no one objects if its doppelganger is brought in to replace it. The particularity of the bearer of those properties is of no absolutely consequence.

This suggests that we don't go to museums for the sake of experiencing the *particulars* that are on display. Since the numerical identity of a particular in the museum doesn't make a difference to its perceptible properties, we cannot be going for the sake of experiencing that *particular*. Rather, we go there to experience the repeatable,

perceptible *properties* of the particulars on display. Of course, those properties have to be instantiated in some particular or other if we are to experience them, but the pure *identity* of the particulars that have those properties seems to play no actual part in our experience. One dung beetle will serve as well as any other.

But this view, however well it fits the case of typical museum objects, doesn't seem generalizable to the class of special museum objects. In late 2010 I visited the exhibition "Tutankahmun: The Golden King and the Great Pharaohs" which was on tour in Denver at the time. The promotional materials for the exhibition all prominently featured Tutankhamun's iconic golden death mask. And on display there was what appeared to be that very mask. But in fact it was a replica. I felt cheated. And I would feel cheated even if there were no perceptually discernible difference at all between the real mask and its replica. A perceptually indistinguishable replica of Tutankhamun's death mask is a poor substitute for the real thing. If we discover that we are experiencing something with merely the same properties as the object itself we are typically bitterly disappointed.

So we have intuitions pulling in two different directions here. On the one hand we often go to museums to experience certain special objects (rather than just typical instances of kinds of things). These special objects appear to involve particularity, not just their properties. So it seems just obvious that these objects are *concrete material particulars*. But, on the other hand, the *identity* of the particulars does not seem to be what *makes* them special. What makes them special are their properties, and properties are, by their nature, multiply instantiable, repeatable. The particulars that have the properties are thus replaceable.

Given technological advancements we can replicate the properties of things with greater and greater degrees of precision. Eventually we might even be able to make a molecule-for-molecule replica of King Tutankhamun's death mask. That replica would, presumably, have all and only the occurrent physical properties of King Tutankhamun's death mask. Or we might even be able to craft an object that more perfectly resembles Tutankhamun's death mask in its *original state*, when it was first crafted over three thousand years ago. That replica of the original *ca* 1323 BC would be a better guide to

the object as it was when it was first laid on Tutankhamun's cold, youthful face. Would this perhaps even more perfect replica be a fit object to list in the inventory of an exhibition of King Tutankhamun artefacts? Would it be a more fit object than the fragile and aged artefact that was in fact Tutankhamun's death mask? Intuitively that doesn't seem quite right. My disappointment in Denver wasn't due to any lack of *resemblance* of the replica to the original. I didn't have the original there to compare it with, and if they hadn't been honest with me I would never have known. But I did want to experience *Tutankhamun's death mask* and since the mask was not there, it seems to me I was cheated of the desired experience.

We now have the bare bones of two rather different answers to the question. The objects of museum experience are either:

(1) Concrete material particulars; or

(2) Properties of material particulars.

For *typical* museum objects the second answer seems perfectly appropriate. And, when you look at the labels on museum displays, and presumably in their inventories what you find are names of kinds or of properties (like *Deltochilum valgum*). Which particular instance of the property the museum possesses is completely irrelevant to both the content of and the value its inventory. Indistinguishable instances of the same properties can be switched in and out without changing the value the museum's inventory or of its displays. So for the *typical* objects that museums collect (all those endless trays of nearly indistinguishable but nevertheless distinct species of dung beetles) the property view seems totally appropriate. But neither answer seems completely appropriate for those special objects such as Tutankhamun's death mask. For special objects, while each of the two answers has something going for it, each also seems lacking, and they also seem incompatible.

From now on I am going to put aside the typical objects (all those endlessly boring trays of dung beetles), and will focus on the special objects alone. I will argue for

a third answer, one which unifies what is attractive about these possibly more obvious answers, avoids the objections to them, and which solves a range of other philosophical problems. I argue that the objects we experience in a museum are neither particulars nor properties. Rather, the objects of the museum experience, the objects that belong on the inventory of the museum collection, are a kind of entity which is often strangely neglected: they are *offices* or *roles*. Like properties, roles are abstracta rather than concreta. But, like concreta, offices involve a singularity that properties lack.

2 Is Tutankhamun's death mask a material particular?

Consider a typical item in a museum collection: say, Tutankhamun's death mask. It is certainly tempting to think that particularism is right about it. It seems to be a material particular, a certain lump of gold. But there are powerful arguments to show that Tutankhamun's death mask cannot simply be a material particular.

To show this, consider a fictional story about the genesis of the mask.[4] Suppose that when King Tutankhamun died from wounds sustained in a chariot accident, a competition was announced to craft a death mask for him, and that the most beautiful and fitting would be chosen by the priests. The winner would be made the Pharaoh's goldsmith. The losers would all die (though it would be a very honourable death). Because of the risky nature of the competition, in the end there were just two competitors, Tum and his junior colleague Tariq. They were presented with two material particulars, both lumps of gold (let them be particulars **F** and **G**) out of which to craft a mask. They toss for lumps, Tum gets **F** and Tariq gets **G**. Tum then proceeded to make a pretty good mask out of lump **F**. Tariq, however, succeeded in making a superb mask out of lump **G**, and it was his mask that was chosen as the winner of the competition. In crafting a mask from the particular lump of gold, **G**, Tariq neither created nor destroyed that material particular, that lump of gold. **G** predated the existence of the mask Tariq

[4] The arguments that follow are, of course, very similar to those in the familiar debate about the statue and the clay. The *locus classicus* is Allan Gibbard, "Contingent identity". *Journal of Philosophical Logic* 4 (1975), 187-222. For a survey of the recent literature, see Ryan Wasserman, "Material Constitution", *The Stanford Encyclopedia of Philosophy* (Summer 2013 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/sum2013/entries/material-constitution/>.

created, but it also survived that creation. **G** took on the properties of a death mask in Tariq's hands, and eventually it was chosen to be Tutankhamun's death mask.

So the following are both true:

(1) The lump of gold which Tariq ended up with existed before Tariq made Tutankhamun's death mask.

(2) Tutankhamun's death mask did not exist before Tariq made Tutankhamun's death mask.

If Tutankhamun's death mask is simply *identical* to a material particular then there is only one material particular in the offing for it to be identical to, namely **G**, the lump of gold Tariq ended up with. But evidently the lump of gold which Tariq ended up with has a property that Tutankhamun's death mask lacks – namely, having existed before Tutankhamun's death mask existed.

Here is something else that's true. Two different material particulars were in the competition, **F** and **G**, and either one of them could have been *chosen* to be Tutankhamun's death mask. As it happens **G** was chosen to be Tutankhamun's death mask. So the following is true:

(3) Had the particular **G** not been chosen the winner of the competition it would not have been Tutankhamun's death mask.

While (3) is true, (4) is false:

(4) Had the particular **G** not been chosen the winner of the competition it would not have been the particular **G**.

Each particular keeps its identity to itself, rigidly and necessarily. Not even the great God Ra can prevent the particular **G** from being the particular **G**. Again, it follows by

Leibniz's principle that Tutankhamun's death mask cannot be identical to the material particular **G**, and that is the only particular it could conceivably be identical to.

Another pair:

(5) If you heated Tutankhamun's death mask to 1000^{C} you would destroy it.

(6) If you heated the lump of gold **G** to 1000^{C} you would destroy it.

(5) is true, (6) is false. Just as the lump of gold that Tariq ended up with predated the existence of the mask, so too one could easily destroy the mask without destroying that lump of gold.

There appears to be an asymmetrical relation between the lump of gold and the death mask. The mask is made out of the lump of gold. *Being made out of* is quite generally an asymmetrical relation, so nothing can bear it to itself. Hence (7) is true, (8) false.

(7) Tutankhamun's death mask was made out of the lump of gold that Tariq ended up with.

(8) The lump of gold that Tariq ended up with was made out of Tutankhamun's death mask.

These are just four of many features of Tutankhamun's death mask that are not features of the material particular **G**, and vice versa. They are thus not one and the same thing. But the only good candidate *material particular* which might qualify as the thing that is identical to Tutankhamun's death mask is **G**. Since Tutankhamun's death mask is not identical to **G**, Tutankhamun's death mask is not identical to any material particular.

3 Is Tutankhamun's death mask a state of affairs or a property?

Traditional ontology embraces particulars, universals (that is, properties and relations) and states of affairs (the having by particulars of properties or particulars standing in

relations) and complexes of states (e.g. episodes). We are left with two broad kinds of entity with which to identity Tutankhamun's death mask: a *property* or *a state of affairs*.

Let me put to one side the possibility that the death mask is a state of affairs: that is to say, an object's having a property or some properties, or some objects standing in some relations. States of affairs are entities that *obtain* or *happen*. It sounds very much like a category error to say that Tutankhamun's death mask is currently an obtaining state of affairs. Similarly it does not seem to be a complex of states of affairs, or an episode. It sounds just as odd to say that Tutankhamun's death mask has been going on for 3000 years, or that Tutankhamun's death mask could stop obtaining soon. Tutankhamun's death mask is obviously the *star* of various states or episodes (the mask's being currently on display in Cairo, the mask's being strikingly beautiful, the mask's having been crafted 3000 years ago, for example) but it *itself* is not a state or an episode.

Might Tutankhamun's death mask be a property rather than a particular? This is not quite such an outlandish proposition. But whatever the property view has going for it can be captured by a more natural hypothesis to which I now turn. And this hypothesis has advantages that the property hypothesis lacks.

4 Roles or offices

What then is Tutankhamun's mask? By the arguments given above it is not *identical* to a particular, but still, it has to be closely related to a material particular. Here is my thesis in short: Tutankhamun's death mask is *something for a particular to be*.

You might think that this is barely different from the thesis that Tutankhamun's death mask is a property. A particular can *be a mask*, for example, in the sense that it can instantiate the property of *being a mask*. But there is something *singular*, or *particularizing*, about Tutankhamun's death mask that suggests it is not a repeatable property. Tutankhamun's death mask has to be *unique*. Whereas any number of things can have the property of being a mask, one and only one thing can be Tutankhamun's death mask.

Something that different particulars could have been, but that only one particular could be in fact, is best thought of as a *role* that a particular can play, or an *office* that a particular can occupy. (In what follows I will use the pair of terms "role" and "office" interchangeably.) Tutankhamun's death mask is a *role* that a particular can play, an *office* that a particular can occupy.[5]

It is a contingent matter whether this role is occupied and it is also a contingent matter which particular in fact occupies it. Nothing occupied the role prior to Tutankhamun's death in 1323 BC. After the competition (my story!) the role was occupied by the particular lump of gold **G**, crafted by Tariq into that iconic mask. And when the lump of gold of which it was made is finally melted down the role will, sadly, no longer be occupied.

For a particular to occupy the role of Tutankhamun's death mask it has to have certain properties. These properties are called *requisites* of the role. A role's requisites identify which role is at issue. Same requisites, same role; different requisites, different roles. A particular occupies the role if and only if it is the sole object to possess the requisites. If nothing possesses the requisites, nothing occupies the role. If more than one particular possesses the requisites, again nothing occupies the role. Roles are thus *particularizing* in this sense. It is possible for only one particular to occupy the role, though which particular occupies the role is typically a contingent matter.

Tutankhamun's death mask has to *be a death mask* for example; and it has to have been placed on Tutankhamun's cold, dead face when he was put to rest in his tomb. Moreover, it has to be the *sole* particular satisfying the requisites. The collection

---

[5] Role theory, or office theory, was developed most thoroughly and perspicuously by Pavel Tichý in a series of articles in the 1970s and 1980s, and I am heavily indebted to his theory throughout. For a classic statement of the theory see Pavel Tichý "Einzeldinge als Amtsinhaber", *Zeitschrift für Semiotik* 9, 13-50,1987. *Translated as* "Individuals and their roles", in V. Svoboda, et al. (eds.) *Pavel Tichý's Collected Papers in Logic and Philosophy* (Prague and Dunedin: Filosofia and the University of Otago Press, 2004), 749-63. (This was in fact written in 1971-2 and circulated before being translated and published in German.) For an early published statement of the theory see "An approach to intensional analysis", *Noûs* 5 (1971): 273-297.

of requisites of the role is called the role's *essence*. The essence of Tutankhamun's death mask is thus a collection of properties which, if it happens to be uniquely instantiated, we can truly say of it: *Tutankhamun's death mask exists.* If no particular currently, uniquely instantiates all the properties that make up the essence then we can truly say of it: *Tutankhamun's death mask does not exist*. Essence and existence are thus appropriately related.

We can now explain the relation between the material particular **G** and Tutankhamun's death mask. The material particular **G** currently has all the requisites of the role and it is the only object that has all the requisites of the role. When we say that ***G*** *is* *Tutankhamun's death mask* we are stating a relation between the material particular, the lump of gold **G**, and the role of *Tutankhamun's death mask*. Analogously, when we say *Obama is the President of the US* we don't mean either that Obama is *identical* to the office of the Presidency, or that he is identical to some *individual*. We are relating Obama neither to himself nor to a distinct individual, but rather to a role or an office, the office of the Presidency. The copula expresses neither identity nor instantiation, but rather office occupancy.

Tutankhamun's death mask is a role or an office, one that a certain particular **G** happens to occupy. This office is, I submit, a paradigm of the kind of thing that should feature on a museum's inventory.[6] It is not material particulars like **G** that constitute a museum's collection but rather the significant *offices* that particulars like **G** occupy. The role of *Tutankhamun's death mask* that the particular **G** plays is the sole reason the particular might be counted part of the museum's inventory.

To see that it is the office, not the material particular, that should be on the museum's inventory, we can show that the inventory might be different even though all the particulars housed in the museum are the same. Suppose **G** is stolen, melted down into a boring ingot, and then returned to the museum, and placed back in the display

[6] I am of course considering Tutankhamun's mask to be among the special objects, not the typical objects, of the inventory. For the *typical* objects, what should be on the inventory are various repeatable properties: like, *Species Deltochilum valgum* (or whatever the museum's convention is).

case by the thieves. (They are doing this as a protest against the theft of sacred objects from tombs and other such sites.) Then even though the museum would still be displaying *the exact same range of material particulars* it would have lost the most important item from its inventory: namely, *Tutankhamun's death mask*.[7]

Conversely, we can show that even though the Museum ends up with a numerically distinct particular in the display case labelled "Tutankhamun's death mask" (or its Arabic translation) it may have exactly the same inventory. Consider a scenario in which the two craftsman toss the coin for lumps as before, but in this scenario the coin lands tails rather than heads. Tariq ends up with the lump **F**, and proceeds to fashion a mask that is qualitatively indistinguishable from the one he crafts in the actual scenario using the particular **G**. The rest of the history of the mask is the same, apart from the fact that **F**, not **G**, has the requisites of Tutankhamun's death mask. In particular, Tutankhamun's death mask, looking exactly as it does in the base scenario, ends up in the Cairo Museum's display case. Every other object in the museum is the same as in the actual scenario. Even though in this alternative scenario the museum houses **F** rather than **G**, the museum's *inventory* seems to me to be exactly the same as it is in the base scenario. In the actual scenario *Tutankhamun's death mask* is **G**, while in the alterative scenario it is **F**. But this makes no difference at all to the Museum's inventory.

If these two arguments are sound then it seems clear that the inventory consists of roles, nor particulars. Of course, the particulars in the Museum's possession are not completely irrelevant to what can listed on the inventory. For one thing, only an *occupied* role can be listed on the inventory. If Tutankhamun's death mask is melted down and the role is emptied of its occupant the Museum can no long list it. For another, only those occupied roles the occupants of which the Museum legitimately possesses can be justifiably listed on its inventory. If it turns out that the Museum does

[7] For my purposes in this paper I am going to ignore a rival view of the distinction between the lump of gold and the death mask – viz. that they are distinct co-located material particulars, one of which bears a constitution relation to the other. I argue against this view in "The statue and the clay: beyond monism and dualism" (ms, under submission).

not own **G** after all, then even if **G** is the occupant of the role and is sitting in a display case in the Museum, Tutankhamun's death mask is not part of the Museum's inventory. So the fact that a role is occupied by a particular that the Museum legitimately owns is both necessary and sufficient for the Museum to be entitled to list that object in its inventory. But that does not establish that it is the particular occupying the role that is the real object in the Museum's inventory.[8]

I now turn to a couple of problems on which this account of the ontological category of museum objects helps throw light.

5 Destruction and preservation

A primary task of a museum is preservation. What preservation amounts to turns on what it is that one is trying to preserve. The particularist view – that museum objects are material particulars – makes preservation either far too easy or far too difficult. Let's begin with the idea that to preserve something is to keep it in existence.

What is it the job of the curator to preserve? Suppose that the particularist is right and that museum objects are material particulars. One of the particulars in the Cairo National Museum is a certain lump of gold, **G**, which also happens to be the occupant of the role of Tutankhamun's death mask. But suppose the Director of the Museum, pointing at Tutankhamun's mask, issues the following instruction to the curator of the Tutankhamun collection: "That is the most important item on your inventory. Your top priority must be to preserve it." What task has the curator been given?

Has she been tasked with preserving a lump of gold? It is ridiculously easy to preserve a lump of gold. Suppose the curator sees the ingot in the display case, after the thieves have stolen it, melted it down, and returned it. Would she say to the Director: "All is well. Despite what the thieves did to it, we have managed to preserve the lump

[8] A widow is someone who was married to a man now dead. But a complete list of all widows is not a list of dead men. That Mary is a widow implies that Mary's erstwhile husband is dead. But that does not imply of any particular man either that he was xMarys husband or that he is now dead. All that it implies is that there is someone or other who was married to Mary and who is now dead. Anyone will do.

G." Moreover, it is really rather difficult to *destroy* a lump of gold in fact. Perhaps if one had the power to transform a lump of gold into some other kind of matter (like a reverse alchemist), one could destroy the lump of gold. Or one could destroy the lump of gold by rendering it into a non-lump, perhaps by dividing it into sundry little lumps and scattering them.

It is even more difficult, perhaps impossible, to destroy a *material particular* like **G**. One could, perhaps, destroy a material particular, but only by making it into an *immaterial* particular. If one had the power to turn **G** into a Cartesian soul, say, one could destroy that material particular. Even so, one would not thereby have destroyed the *particular* **G**, but merely transformed **G** from a *material* to an *immaterial* particular. The lump of gold, the material particular, and even the concrete particular, all of which play the role of Tutankhamun's death mask, are all extraordinarily resilient items. So on particularism, the preservationist would be out of a job. She would have little or nothing to do.

The particularist might offer the following rejoinder here. Preserving a particular is not a matter of preserving its existence. Rather, it is a matter of preserving its current *state*, of making sure that it retains its contingent properties. Melting it down would change its properties, and the curator would have failed to preserve it.

But *which* contingent properties should the curator attend to? All of them? While this makes the task a non-trivial one, it makes it too hard. Material particulars are constantly changing, and it is impossible to preserve all their properties. One property that a material particular has is its location relative to other material particulars. Clearly we cannot preserve that without freezing everything in the universe in place.

Perhaps the state preservationist will modify this overly demanding requirement, and claim that it is just the *intrinsic*, or *non-relational* properties that need to be preserved. Among such properties we can count the location of the various material components of the particular. But certain components (the atomic and sub-atomic particles which make it up, for example) are constantly on the move, and it would be a hopeless task to freeze those in place. Nor would it be realistic to demand that *as many as possible* of the particular's intrinsic properties be preserved. That would not only be

daunting and open ended, it would be a waste of resources. Many intrinsic properties of a museum object are irrelevant to the task of its preservation.

So if preservation is construed as preserving a particular in existence then the task is far too easy. If preservation is construed as preserving a particular in its current state, then it is far too hard. Either way, particularism generates an unacceptable account.

Let's switch to the role theoretic account of museum objects. Suppose that one item on a museum's inventory is: *Tutankhamun's death mask*. Unlike **G,** this object is not very resilient at all. It could easily slip out of existence. It could easily be destroyed. How might it cease to exist? By depriving **G** of any single requisite of that role, we destroy its status as occupier of the role, and we empty the role of its occupant. We make it the case that Tutankhamun's death mask *no longer exists*. We can do this simply by melting it down and turning it into a boring ingot.

To *preserve* Tutankhamun's death mask is to ensure its *continued existence*. What does this mean? To say that Tutankhamun's death mask exists is to say that some particular occupies that role. So to preserve its existence is to make it the case that a particular continues to play the role of Tutankhamun's death mask, that some particular keeps all the requisites of the role. That's a non-trivial task, but it isn't so difficult that the curator is bound to fail at it.

There are different kinds of offices. Some offices can switch occupants. The office of the President of the US is like that. It is a *reoccupiable* office. By law the occupant must be a different individual every eight years. Often the office switches out occupants after a single term. Less happily, the occupant is sometimes assassinated mid-term, thereby emptying the office, and filling it with whoever previously occupied the Vice-Presidency. But not all offices can switch occupants in and out like that. Consider the *first President of the US*. Any number of different people might have occupied that office, but once George Washington made it into the office, it was impossible, thereafter, for any other individual to occupy the office. Not only does George Washington's initial occupancy of the office block other would-be occupants from occupying it, George can

never vacate it. Once *the first occupant of O* then *always* the first occupant of *O.* Finally there are roles that can admit a range of different individuals as the first occupant, and (unlike the first American President) can also lose the initial occupant, but the occupant's initial occupancy blocks subsequent occupancy by any other individual, even after the initial occupant vacates the role. *The last living member of the team to have conquered Everest* is one such. George Lowe was the last member of that illustrious team to die.[9] At some earlier point (when the second to last living member of the team died) he began occupying the aforementioned office, and with his death that office became forever empty. Call an office like this *unreoccupiable*.

What kind of office is Tutankhamun's death mask? Prior to 1323 BC different particulars could have been chosen to occupy the office. But one of the requisites of the office is *having been placed on Tutankhamun's dead face in 1323 BC*. After **G** was placed on Tutankhamun's face in his tomb, there was one and only one particular that could continue to occupy the role, namely **G**. Even though **G** is not guaranteed continued occupancy of the role, every other particular is locked out of occupancy, forever. So if and when **G** vacates the role nothing else can take its place. Tutankhamun's death mask is an unreoccupiable office.

You might think that preserving Tutankhamun's death mask is simply a matter of making sure that the *current* occupant **G** has the properties specified in the description. This is not quite right. Things can happen to **G** which force it out of the office and which prevent it ever getting back. Suppose we take out all the gems, strip off the glass, melt it down into an ingot, and then we painstaking recraft a mask from that lump of gold, a replica of the pre-ingot mask, but one made of the same materials, albeit with the micro-parts quite differently arranged. Note that the mask we would have at the end of this process would be the *same* material particular as the previous occupant of the role, and it would have quite a few of the *very same* occurrent material properties as the original mask (size, shape, etc.). So **G** would once again be a death mask; **G** would have the characteristic appearance that Tutankhamun's death mask had; and **G** would still have

[9] http://www.dailymail.co.uk/news/article-2297363/George-Lowe-dead-Last-surviving-member-team-conquered-Everest-1953-dies-89.html

been (in its pre-ingot state) the death mask that covered Tutankhamun's face. But intuitively would we want to say that we still have Tutankhamun's death mask on our hands? Could we truly say "This very death mask was placed on King Tutankhamun's face when he was laid to rest." I don't think so. By melting **G** down into an ingot of gold, we committed an act of irreversible vandalism. We destroyed Tutankhamun's death mask, and not only that, we sealed its fate. We rendered it impossible for it ever to exist again. We created a different death mask – even though the new death mask is a perfect replica of the original *and* the new death mask happens to be occupied by the very same material particular as Tutankhamun's death mask.

I am not arguing here that unreoccupiable offices, whether this one or others, cannot tolerate temporary gaps in their occupancy. Some particulars consist of parts that can be disassembled, scattered and reassembled. *The chair I bought from Officemax*, which I assembled myself, is one such. If I disassemble that chair and scatter its parts then *the chair I bought from Officemax* has no occupant. But when I reassemble the parts, according to the instructions, that office is reoccupied, and by the same occupant it had before. However, melting down **G** and recrafting it into a look-alike is not a case of simple disassembly and reassembly. It is a case of irreversible destruction.

The only way to keep an unreoccupiable office like Tutankhamun's death mask in existence, then, is to ensure that the *current* occupant retain certain of the properties that *make* it the current occupant. We have to preserve, in the current occupant, all the requisites of the role, and do so in such a way that the determinate realizations of those properties are the same determinates as realized them before. A mask can retain occupancy of the role with insignificant changes—like a gem falling out and being secured back in place with a tiny dab of super glue. But it cannot survive wholesale meltdown and refashioning, even if the result of the refashioning looks exactly like the mask as it originally was.

This is good news for preservationists.

It is good news because – unlike the naive particularist account which makes it trivial to secure the continued being of the museum object – it means that preservationists do have some challenging work to do. And it is also good news because it means that what they have to do is not impossibly difficult – unlike the second particularist account, according to which all or most of a particular's properties have to be kept intact. For each museum object, for each role on the museum inventory, what the preservationist has to do is preserve, in its *current* occupant, the *requisites* of that role. In the case of Tutankhamun's death mask, provided they preserve **G**'s continuous possession of those requisites, Tutankhamun's death mask will survive.

6 Restoration

Curators not only preserve things, they also restore things. What is restoration and what does it require?

On the particularist theory of museum objects, restoration is either trivial or impossible. Suppose restoration means *restoring the existence* of an object. If a material particular cannot go out of existence then a curator will never have to engage in restoring it. So it is tempting to say that the aim of restoration is not to restore a museum object to existence, but to restore the museum object to its "original" state. But again if the museum object is a material particular the task now becomes impossibly difficult. Further, even if the bar for success is lowered, by requiring only that the curator strive to get as close as possible to restoring the particular to its original state, that is still counsel for despair. It makes the task of restoration open-ended and all but unachievable.

Let us switch, then, to an office-theoretic account of the museum object – that the museum object is an occupied but *unreoccupiable* office, one that is of course defined by its various requisites. While some particular uniquely instantiates the requisites of the office, the office is occupied, and the museum object exists. But if the particular that occupies the office loses one or more of the properties that are the requisites of the office, then the office ceases to be occupied, and that unreoccupiable museum object "goes out of existence" – not in the sense that the office is no longer one of the offices

that there are, but in the sense that it is no longer occupied, embodied, or realized in a particular.

Restoration is, I submit, the process by which occupancy is restored to an empty role. When a role is vacated by its occupant, because it loses one of the requisites of the role, a curator may be in a position to reverse this by restoring to the previous occupant the crucial property that it lost, thereby restoring the object to existence.

The important difference here between the office theory and the state version of the particularist theory is that the role severely delimits the class of salient properties to which the curator must attend. Not any old change in properties is going to empty an office of its occupant, and so not any change in properties creates a problem for the curator or requires the restoration of the object. Only the loss of a requisite calls out for restoration.

7 A rich hierarchy of roles

Offices are pretty easy to come by. For any collection of properties there is an office, whether occupied or not, that has just those properties as its requisites. So there are as many roles as there are collections of properties. But not all roles are equally interesting or salient. Some roles are clearly more interesting, striking or valuable than others. *The dung beetle at the top right corner of dung beetle display case #1001* is a rather dull role, and we would probably have no particular interest in seeking out its occupant. By contrast *Tutankhamun's death mask* is rather interesting. But, and this is important, its interest does not follow solely from its essence. Some of the interest of the role depends on what properties its occupant has, and how it is contingently related to other roles.

Imagine that Tum won the competition (through bribery and corruption) and that his rather dull mask ended up in the Cairo Museum in the case labelled (correctly, in this scenario) *Tutankhamun's death mask*. Other things being equal, the Cairo Museum's inventory would be the same as in the original scenario, but the role of *Tutankhamun's*

death mask would be somewhat less interesting than it is in fact. Not every feature of a role is settled by its requisites, including how interesting the role is.

The President of the United States, for example, is more powerful both than the Vice President of the US and than the Prime Minister of New Zealand. These are both office relations which do not supervene on properties of their individual occupants. The former relation flows from the requisites of the two offices as defined by the Constitution of the US. The latter relation does not flow from the requisites of the offices, but rather from certain geopolitical facts which might well have been different or which might well change. (If a nuclear war wipes out all but a tiny remnant of civilization in the Northern Hemisphere and only a handful of nations in the Southern Hemisphere survive intact, then the current power relation between the US and NZ might be reversed.) Similarly, as things stand, Tutankhamun's death mask is aesthetically much more valuable than the dull mask that lost the competition. But had Tum's dull mask won and Tariq's mask lost then that relation would have have been reversed.

Where E is some essence (i.e. a set of requisites) let $\mathbf{R}^E$ be the associated role that has E as its essence. Let **T** be the essence of Tutankhamun's death mask. $\mathbf{R}^{\mathbf{T}}$ is thus the role of Tutankhamun's death mask. While $\mathbf{R}^{\mathbf{T}}$ is interesting in itself, and is a perfectly good object to list on the museum's inventory, I want to suggest that despite its intrinsic simplicity, it has a *contingent* richness to it. It is the base of a rich hierarchy of ever more determinate roles. This hierarchy is a joint product of the initial base role $\mathbf{R}^{\mathbf{T}}$ and the material particular **G** that happens to occupy that role.

The actual occupant **G** of $\mathbf{R}^{\mathbf{T}}$ has a plethora of properties which transcend the essence **T** of the role $\mathbf{R}^{\mathbf{T}}$. Indeed, for every determinate property the occupant of the role of Tutankhamun's death mask either has that property or fails to have it. I am not thinking here solely of physical properties. The occupant may have many other kinds of properties, including relational properties, historical properties, aesthetic properties, and evaluative properties, to name just a few. Most of those properties are rather dull, but some of them are very interesting indeed. And some of those are also value enhancing.

Let S be any subset of the set of all properties had by **G** (at some specific moment). Then for each such set S we can entertain a stronger essence $\mathbf{T} \cup S$ for which

there is an associated role, $\mathbf{R}^{\mathbf{T}\cup S}$**,** the occupant of which is also **G**, the same particular as the occupant of $\mathbf{R}^{\mathbf{T}}$**.** For example, let **V** be the set of properties that fully characterize the *visual appearance* of the occupant of $\mathbf{R}^{\mathbf{T}}$. Let **M** be an exact specification of the various kinds of matter that are parts of the occupant of $\mathbf{R}^{\mathbf{T}}$. $\mathbf{R}^{\mathbf{T}\cup\mathbf{V}}$ and $\mathbf{R}^{\mathbf{T}\cup\mathbf{M}}$ are both more determinate offices than $\mathbf{R}^{\mathbf{T}}$, and $\mathbf{R}^{\mathbf{T}\cup\mathbf{V}\cup\mathbf{M}}$ is more determinate than all three. Of logical necessity anything that occupies $\mathbf{R}^{\mathbf{T}\cup\mathbf{V}\cup\mathbf{M}}$ occupies $\mathbf{R}^{\mathbf{T}\cup\mathbf{V}}$ and $\mathbf{R}^{\mathbf{T}\cup\mathbf{M}}$, and anything that occupies either of those occupies $\mathbf{R}^{\mathbf{T}}$. The converse claims are clearly not true. The particular **G** does occupy all of these, but if the rival mask had been chosen the winner of the competition, then, while it would have filled $\mathbf{R}^{\mathbf{T}}$, it would not have occupied these other roles. So we have a plethora of roles that **G**, the actual occupant of Tutankhamun's death mask $\mathbf{R}^{M}$, occupies, all of them at least as determinate as $\mathbf{R}^{\mathbf{T}}$. These roles form a potentially infinite set of roles under a partial ordering by determinateness. Call this the $\mathbf{R}^{\mathbf{T}}$**/G** hierarchy, and call $\mathbf{R}^{\mathbf{T}}$ and **G** the *base* of this hierarchy.

If the properties that a material particular could have (perhaps suitably restricted to a certain sort, like the intrinsic properties) form a set, then the supremum of the $\mathbf{R}^{\mathbf{T}}$**/G** hierarchy is that office which contains as requisites absolutely every such property in fact possessed by **G**. Note that to generate the hierarchy we need both the office *and* its current occupant. With the same office and a different occupant a different hierarchy would be generated. And if that particular had not occupied that role, then no hierarchy at all would be generated by that role-particular pair.

Some offices are more valuable than others. For example to occupy $\mathbf{R}^{\mathbf{T}\cup\mathbf{V}}$ an object has to have the strikingly beautiful appearance that the current occupant of Tutankhamun's death mask has. Occupying the base role $\mathbf{R}^{\mathbf{T}}$ on the other hand does not require that. An occupant of $\mathbf{R}^{\mathbf{T}}$ could have been quite lack-lustre in its appearance, as was Tariq's competitor to **G** in the competition. So the $\mathbf{R}^{\mathbf{T}\cup\mathbf{V}}$ role is a more valuable role than the $\mathbf{R}^{\mathbf{T}}$ role. We thus have a partial ordering of these roles by value as well as by determinateness. But more determinate roles are not necessarily more valuable. They might in fact be of the same value (if they involve actual properties of the mask

that neither add nor detract from value) or even of lesser value (if they involve properties that detract from the value). So there is an ordering of roles in our hierarchy of *greater value*. This is also possibly a partial ordering. In certain cases there may be a role that is of greater value than all the others. Call this the value-*supremum* of the hierarchy, or $\mathbf{R^T/G}^{Supreme}$.

Perhaps instead of preserving Tutankhamun's death mask ($\mathbf{R^T}$) in existence we could task curators with making sure that $\mathbf{R^T/G}^{Supreme}$ remain in existence (or that whatever previously occupied a vacated $\mathbf{R^T/G}^{Supreme}$ be returned to its occupancy of $\mathbf{R^T/G}^{Supreme}$). That would be tantamount to tasking the curator to preserve (or restore) the most valuable role in the $\mathbf{R^T/G}^{Supreme}$ hierarchy. That would be like stipulating that whatever base role we begin with, each such base role should be replaced with the value *supremum* in the hierarchy of roles.

This would, however, be a very tall order. For one thing it is possible that there is no value *supremum* in the hierarchy. For another even if there were one, it would likely be beyond our ken to identify it. Finally, even if there were a value *supremum* in the hierarchy and we could identify it, if **G** lost even one of the requisites of that illustrious office, while nevertheless retaining all of the others, the museum would have failed in its preservationist task. That is far too demanding. **G** has undoubtedly lost some valuable properties over the years since its discovery (even while possibly gaining others) but that does not mean the preservationists have failed in their task.

There is a middle road here between the low road (preserve the base role) and the impossibly high road (preserve the value *supremum*). We can endorse the low road as the lower bound on our preservation/restoration efforts. If the base role loses its occupant and we cannot restore its former occupant to the role we have failure. But in many cases even the preservation of the base role is difficult enough, and something to be celebrated when it is achieved.

Further, we can hold up the high road as an *ideal* to strive for, one that we know will very likely not be realized and we need not fret if we miss it. In this case, a miss is not as bad as mile. The higher up the value hierarchy that preservation/restoration can be pushed the better.

The fact that the hierarchy of roles above $\mathbf{R^T}$ depends on both the role and its particular occupant might suggest that I have wrongly identified the museum object with the role ($\mathbf{R^T}$, in this case) when what is really the best candidate for the museum object is the role/particular pair: namely $\mathbf{R^T/G}$. This view might help explain the strong presumption that people have in favour of particularism.[10]

However, even thought his hybrid view is not simple particularism, and it would clearly avoid many of the more obvious objections to particularism, I don't think it is right. For consider the alternative scenario in which Tariq gets the lump **F** to work with, instead of **G**, and makes a mask qualitatively indistinguishable from the mask in the original scenario. Then we would have a different role-particular pair ($\mathbf{R^T/F}$) but (if I am right) we would have exactly the same museum object, with exactly the same salient features and it would generate a hierarchy of roles of exactly the same kind as that generated by $\mathbf{R^T/G}$. Whenever $\mathbf{R^T}$ is occupied it generates a hierarchy. What kind of hierarchy is generated will depend on the properties that the occupant of the role has. But the interest of the hierarchy will not depend in any way on the numerical identity of the particular occupant. It will depend exclusively on the substantive properties of that occupant. Two qualitatively identical occupants will generate qualitatively indistinguishable hierarchies.

8 What we see in museums

We are now in a position to give a unified answer to our two-sided question.

When we see something we almost always see it *as* something. The object of a visual experience is always an object that has certain features. For example, suppose I have a visual experience, say the experience of the young deer on the trail in front of me start at the sound of me breaking through the undergrowth. What is the object of that visual experience? What is it I see? The temptation here, again, is to say that what I see

[10] I am indebted to Victoria Harrison for making this suggestion forcefully. Although I reject the suggestion I can certainly see the attraction of it .

is a material particular, that particular which is the young deer on the trail in front of me. But we can show, by the kinds of arguments I gave above in section 2, that *the young deer on the trail in front of me* cannot be identical to a material particular. It too is a role for a particular to play. For example, even though I have the visual experience of the young deer on the trail in front of me, there may in fact be no deer in front of me at all. I can be hallucinating, and yet still have the visual experience of the young deer on the trail in front of me starting. The object of my visual perception in these cases could not be any material particular since there is no appropriate material particular for it to be. Or the material particular in front of me might be some other kind of creature, say a dog that has a passing resemblance to a young deer. Still, what I have a visual experience of is a young deer. But what occasions and in part causes this experience of a young deer, is a deer-like dog.

I want to suggest here, though it obviously requires more argument, that the objects of experience, what Brentano called *intentional* objects, are best identified with what I have been calling roles or offices. Note that they are not thereby subjective or mind-dependent entities. They are perfectly objective in the same way that any abstracta are objective. They can be the common objects of experience of different perceivers, they can be the common objects of both veridical and non-veridical experience, and they are the common objects of thoughts which involve them. Whenever I have an experience of *the P* what I am related to in experience is the role of *the P* whether or not that role is occupied, and whether or not the occupant of the role is the causal source of my experience.

Of course for my experience of *the P* or, more generally of *the P as Q*, to be veridical then additional conditions are necessary: *the P* must exist (the role must be occupied); the occupant of the role of *the P* must have the property *Q*; and *the P's being Q* must causally contribute (in the right way) to my having the experience of *the P as Q*. If any one of those conditions fails then my experience of *the Ps as Q* is not veridical.

If this is right then the inventory of a museum's collection is best construed as a list of *occupied* roles, to the occupants of which the museum holds legitimate title—rather than as a list of the material particulars that occupy those roles. The Cairo

Museum should thus list *Tutankhamun's death mask* on its inventory, not a label of the particular lump of gold **G** that occupies the role. The objects on the inventory, the roles themselves, are also fit objects of museum experiences. It is *Tutankhamun's death mask* that you go to that museum to see and experience. And given the right conditions noted above—that the roles are occupied and that their occupants are displayed in ways that give rise to the right experiences in the right ways—they can and will be the objects of veridical museum experiences. And veridical experiences of valuable objects will be valuable experiences

Tutankhamun's death mask is a role. To see *Tutankhamun's death mask* is to bear an intentional relation to that role. To veridically see Tutankhamun's death mask is to see it; to see it as having some property that it really does have; and for its having that property to figure, in the right way, in the causal explanation of the seeing of it. For you to experience Tutankhamun's death mask *as strikingly beautiful*, for example, the following has to be the case: Tutankhamun's death mask has to exist; you have to experience Tutankhamun's death mask; you have to experience it as beautiful; and the death mask's *being* strikingly beautiful has to figure in the right way in the causal explanation of your experiencing it as beautiful.

Seeing as is an intentional relation. Two of us can look at the same particular on display and yet see different intentional objects. You see Tutankhamun's strikingly beautiful death mask. I see the vivid embodiment of the terrifying oppressiveness of the Pharaoh's regime which enslaved craftsmen to work at producing pyramids as well as gorgeous objects for their burial. Both of these can be accurate perceptions of the death mask we are looking at.

There need be nothing subjectivist or projectivist about this.[11] There is a rich hierarchy of roles generated by Tutankhamun's death mask and the material particular **G** that occupies it, and any one of those roles might be the object of a veridical

[11] That there is a temptation to think of intentional objects like offices as in some way subjective or projected comes out in Simon Knell's otherwise insightful article "The intangibility of things", in Sandra H. Dudley, *Museum Objects: Experiencing the Properties of Things* (London and New York: Routledge, 2012), 324-336.

experience. The more determinate the role, the richer the object of the experience, and the richer the experience itself. There is one material particular, **G**, that occupies all these roles and so there is no incompatibility in our veridically experiencing different facets of the particular. If you know different things about Tutankhamun's death mask than I know, then the intentional object of your experience might be very different from the intentional object of my experience. An interpreter of the object can thus open up to us the many different but nevertheless compatible facets of the material particular, each facet being a distinct role that the one material particular plays.

So to return to our initial question, why go to the bother of having these museum experiences at all?

Not any old role is fit for inclusion in a museum's inventory. What museums want on their inventory, are rich, valuable or important roles. The richer the role the better. A rich role is one that, in concert with the actual occupant of the role, generates a complex hierarchy of ever more determinate roles of ever increasing value. A rich role is thus one that, in concert with the particular that occupies it, yields to the museum visitor a cornucopia of different intentional objects of experience, each laying bare a different facet of the occupant of the base role.

To veridically experience the value of something is to have a valuable experience. To veridically experience the value of a deep, beautiful, complex and rich piece of music, for example, is to have an experience that is itself deep, beautiful, complex and rich. And there is no better justification for seeking out an experience than that it would be valuable to have it.

To experience a complex, valuable and rich role, like Tutankhamun's death mask—one that, in concert with its actual occupant, generates a rich hierarchy of ever more determinate and more valuable roles—is to open up the possibility of an array of complex, rich and valuable experiences. The richer the role, the richer the hierarchy of roles the base role generates in concert with its occupant, the more potential value one can directly experience—through the veridical perception of as many of its facets as possible. That, I submit, is the kind of thing we see in a good museum, and why we seek out museum experiences.

Author Biography GRAHAM ODDIE is Professor of Philosophy at the University of Colorado, Boulder. His interests lie in metaphysics, value theory and epistemology, but especially at the intersection of those. He is the author of *Likeness to Truth* (Reidel, 1986) and *Value Reality and Desire* (OUP, 2005) as well as over seventy articles in a wide range of journals.

References

Armstrong, D. M., *Universals: An Opinionated Introduction* (Boulder: Westview Press, 1989).

Gibbard, A., "Contingent identity", *Journal of Philosophical Logic* 4 (1975), 187–222.

Knell, S., "The intangibility of things", in Sandra H. Dudley (ed), *Museum Objects: Experience the Properties of Things* (London and New York: Routledge, 2012), 324–336.

Oddie, G., *Value, Reality and Desire* (Oxford, Oxford University Press, 2009).

Oddie, G., "The statue and the clay: beyond monism and dualism" (ms).

Tichý, P., "Einzeldinge als Amtsinhaber" *Zeitschrift für Semiotik* 9, (1987), 13–50. Translated as "Individuals and their roles", in V. Svoboda, V. et al. (eds.) *Pavel Tichý's Collected Papers in Logic and Philosophy* (Prague and Dunedin: Filosofia and the University of Otago Press, 2004), 749–63.

Tichý, P., "An approach to intensional analysis", *Noûs* 5 (1971): 273–297.

Wasserman, R., "Material Constitution", *The Stanford Encyclopedia of Philosophy* (Summer 2013 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/sum2013/entries/material-constitution/>.