

6. SUBSTANCE

Those who have studied the last lesson will understand that, while this lesson has a different word as its title, the reality to which it refers is the same : substantial form = substance.

I want to begin today by telling you a story of my youth, or younger days. When I was about 33 years old, I walked into the wilds of South West Tasmania with two walking mates and climbed one of Australia's most famous mountains, Federation Peak. It is by no means the highest of Australia's peaks but, because of the unique challenges it offers, it is one that most walkers and mountaineers want to climb. It is in reality a monolith, a seven hundred foot rocky tower. There is a special route for rock-climbers but, for the average bush-walker there is an easier route (on the southern side) which entails, apart from some tough scrambling, some fairly basic rock-climbing skills. Like almost every rock-climb there are on this route one or two sections called 'crux-es' or, more correctly, 'cruces'. It is, literally, *crucial* for you to get past these points. If you cannot do so, you will not get to the top.



Federation Peak; photo courtesy *The Guardian*

Now, in similar fashion, if you are to grasp the essentials of metaphysics it is crucial that you understand *and realise* the essential part that the immaterial plays in the world and in the universe. Let me quote the late Frank Sheed in his work, *Theology for Beginners* (London, 1958; ch. II, Spirit, p. 18). He is speaking of one aspect of the immaterial, that of the human intellect, and of the fact that the human soul, of which intellect is the proper power, has no parts and does not occupy space but his comment applies equally to the whole of the immaterial contribution to reality.

"There is hardly anything one can say to make [the] truth any clearer : you merely go on looking at it , until suddenly you find yourself seeing it. The most any teacher can do is offer observations..."

So, what I say to you is mull over carefully what you have studied over the last few lessons. Think of the principles we have elaborated. The simple example of the wood, screws and brackets that make up a table but which could as easily be a ladder, a chair, a door or a small boat, is very helpful. Obviously, it is not the matter that determines what the table is. It is something else, something not material, *immaterial*. The forms of all material things are immaterial ; matter is merely their substrate. It plays an important, but a subsidiary, part in the compound which is the material thing.

We can get things into our minds because the form, the determining part of them, is not material. In the natural thing, whatever it may be, that formal part is called substantial, or its substance.

To re-enforce the teaching I will use three examples, one of which we saw last week.

The Exploding Table

Let us assume that Jim and John Paul, when they were much younger and less thoughtful about possessions, found some explosive one day and a fuse. John Paul's parents were away and they decided, for fun, to take an old table from the shed up the back paddock away from the cattle and see what would happen when they set off the explosive under the table. So, they get everything ready. They set the fuse, light it and run for cover to the shed. There is a tremendous bang and a great crash as one of the legs of the table lands on the shed roof. When the sound dies away they come out to find the world full of splinters and fragments of wood descending from the sky and panels and uprights spread all over the place.

Now, the material of the table is still in existence, if somewhat scorched and fragmented. But the table has ceased to exist. They have destroyed its form.

The Shot Rabbit

Next, let us consider the dead rabbit that Jim shot so conveniently for us before the last lesson. What Jim did when he shot the rabbit had the same effect as what we have imagined John Paul and Jim did with the table. He destroyed its form. The matter is still there, a lot less fragmented than the matter of the table. But the form, the substance of the rabbit, has disappeared.

The Crushed Block of Marble

Recently, I went with Naomi, Elizabeth, Catie and John Pat and their father, and Bernadette and some other friends, splashing down a canyon at Wombeyan Caves. At one point we floated through a long pool where the walls of the canyon were marble, yes, actual marble. Upstream from this canyon, there had, years ago, been a quarry where the workmen had cut blocks of the marble and sold them to builders. Some found their way into one or other of the local churches as altar pieces. Let us imagine that a small block of this marble is put under a crusher and reduced to gravel size lumps.

What makes marble be marble, its substantial form, inheres in the very smallest marble can be (the molecule of calcium carbonate, or calcium magnesium carbonate), so this horrendous force, which would have rendered the table matchwood and disposed of the substance of the rabbit quite as quickly as Jim's rifle bullet, does not destroy the substantial reality of the marble but alters the structure of its mass. The substance remains : it is still marble.

The substantial form of minerals differs from those that form living things. In minerals there can be a smallest, and the smallest is very small indeed. For living things, no matter how small or how large it is—from a tiny midge or mosquito up to the blue whale, 30 metres long and weighing 190 tonnes—the substantial form, the substance, its soul, is one immaterial reality.

Aristotle, that wise man—*the Philosopher* as St Thomas calls him—said something very profound about living things : “For living things, to live is the same as to be.” The soul not only gives form to the

rabbit, it gives it life and it gives it existence. The dead rabbit is no longer a rabbit but a carcass. The rabbit has ceased to exist.

Substantial Change

The rabbit killed is prepared for dinner and when eaten by, say, Julian it is transmuted into Julian's substantial form. The cow eats grass and turns it into milk (and cow, of course). Oxygen and hydrogen, with a spark are turned into water. In each case there is substantial change. Note that in every such alteration, something changes and something abides. What changes ? What abides ?

	[something changes	-	the substance
In every substantial alteration	[
	[something abides	-	the matter

With the blown up table, the materials are all there still, but the form of table, 'table-ness', has disappeared. With the shot rabbit, the matter of the rabbit, its carcass, remains but the substantial form, the substance, has disappeared. With the spark igniting the oxygen and the hydrogen in the container, the substances of oxygen and hydrogen have disappeared to be replaced by the substance of water. The underlying matter, transmuted, remains. As you would expect, you need a lot of oxygen and of hydrogen to produce even a little water because the matter of the two gases becomes the matter of the water.

We understand instinctively that if the grass has died off because of a drought, the cow produces little milk. Similarly, if the rabbit Julian eats is thin and he has nothing else to eat, he will start to lose weight. In each case it is the *material* part of the substance that is transferred in the substantial change.

Primary and Secondary Matter

A word about matter. The matter of the table, the wood, nails, screws, brackets, etc, is called '*secondary matter*' because each is derived from natural elements. These have already been formed from primary matter. Natural things, trees, the rocks from which iron is extracted to make the steel that forms the nails, screws and brackets, are all comprised of natural substantial forms (substances) and primary matter.

The word *natural*, as those like *naked*, *native*, *nature*, all have a common root, the syllable *na-* which signifies 'given'. All natural things are given to us. We cannot work save with the natural, with what we are given. We cannot make anything that is not ultimately derived, via '*secondary matter*', from the natural.

I will close by recommending three books for you to peruse and to keep with you always. They are—

Frank Sheed's *Theology for Beginners*

G K Chesterton's *Orthodoxy*, &

C S Lewis's *Mere Christianity*.

You will find that you will be able return to them again and again throughout your life begun here with lessons in first philosophy.