## LISA ROBERTSON / Edmund Husserl's Origin of Geometry: An Introduction

The historical origin of geometry is present right now at the horizon line, and also within speech. Geometry is accessible, spacious and lively. Tradition that isn't open to the present can't lay claim to truth. Everybody should do geometry.

Geometry's horizon is the line where sensuous conceptual activity touches a lack of knowledge. I can stand in for this lack.

Right away, geometry poses the problem of identity. To be in the present, tradition must change as it also remains recognizably itself. There's no identity without sensual discontinuousness, the discontinuousness being necessary to give a little push to continuousness as a timely sensation. We carry the horizon internally, each of us, as an identity.

Each time we actually know this geometry originates.

When I grasp my discontinuous continuousness that begins and moves, I am in the vitality of geometry as a line. I'm in the original geometry that others have thought. Here I am trying to experience each sentence as geometry that begins with a thought actually experienced, then moves that thought sensation into what I don't know. It feels like a risk because geometry is risky.

Sometimes we need an instrument to slow down experience, to make the moving line of geometry perceptible in a way that doesn't cause fear. And so it becomes time to invent an instrument, it becomes time to be in love with tradition, tradition felt as that internal horizon where what we want to know touches everything ever living. We really feel the point of their touching, and so we make an instrument out of the love of beginning.

Originating geometry can be frightening which is why we sometimes do it with others.

My father thinks in geometry. He said on the telephone that there is very little innovation, and then he slowly repeated himself. Already geometry is mathematics, philosophy, everything. Although this thought, the thought of the rarity of innovation, moved counter to my prior beliefs, I almost did understand and I was stimulated.

The identity of geometry can be spoken. There can be geometry when we speak on the telephone or in a café. On Saturday my friend said four-dimensional geometry is very difficult. Take this cup for example. It is geometry she said. It has a position in space. She lifted the cup. Then move it in space and the movement is the fourth part. I nearly understood what she meant and I was filled with the excitement of geometry. And then my friend spoke of the invention of an imaginary number called i, in order to solve a problem. But here I want to stay with geometry. There we were in a café on a Saturday doing geometry and it was excellent. Having spoken about geometry with my father and my friend I now wanted to speak about it often. Everybody can know geometry but it needs to be spoken.

Living wakefully in the world is geometry said Husserl.

Some say that geometry is not equivocal. Because of its active relation to its ongoing spoken origin in the present, geometry cannot be equivocal. Its language is true; that is to say that the language my friend and my father and I have recourse to in the café, on the telephone, is thoroughly the language through which geometry activates its origin and nothing else. I understand that this is so but I want to add to this statement about the univocity of geometry's language my own ignorance. When I speak with my friend and my father in order to learn geometry, to do geometry together with them, I am doing so in constant view of my own ignorance, my misunderstanding, my tiredness and my need to eat, as well as in the actuality of my voracious vitality which wants nothing less than to assume the entirety of geometry as its own treasure to be shared among the others for whom it also exists as exclusively their vitality's treasure. It is my effortful ignorance that gives me our geometry. As our words express true things, such as the fourth dimension potential to the coffee cup, or geometry's infinity, they express these certain things only because the very same words represent the potential of not expressing anything. Language is made equivocal by its possible failure, a failure as inherent to our speaking as it is to our love. Geometry also could fail.

What of the vocational interruptions and time out for rest, which cannot be overlooked, said Husserl.

The possible failure of language is part of why and how we speak, and it is part of the way we express geometry. It is the part that keeps our vitality buoyant at the thought of the horizon at any specific time of day. The possible failure of language, that is, its equivocity, is necessary to carry the tradition which is geometry into our mouths and our guts and our hands. Doing geometry takes guts because it could fail. This time, the fourth dimension of the coffee cup at the café table could no longer be self evidently true. The line could stop posing the problem of identity in movement. Language could stop meaning any of these things. Tradition is vulnerable and sometimes stops. Worse, judgement is sometimes mistaken for tradition. Geometry does not judge; it is not law. It is only historical as it is being expressed as an origin, as a thinking with guts. If we want to know what origin is we can go to geometry but not to law. I say we can go to it but I mean we can bring its language, which is always about to fail, into our own ignorance and that is a horizon. Geometry takes guts.

Beyond its possible failure, what makes geometry actual is the possibility of its renewal, which is different than logic. It is renewed through a living transmission, and not caused. The renewal of geometry is active, and happens not in the sentence, but in space, at the level of guts, sometimes in a geometer's solitude, and sometimes in a conversation. But there is no solitude in geometry because to enter into it is to be existing in history, which is to say, always with other geometers, living and dead. It is not the pastness that gives geometry its history; it is its ability to become vivid in space and thinking and speech. So as well as being importantly in a conversation with her own ignorance, a geometer converses with the long transit of thinking. She is always outside herself, and this is one of the pleasures her projects bring. The identity of geometry is not individual; it can't be because the geometer begins with another's thought, on the telephone, at a café, or in an email. When I do geometry I come to see that what I have already thought doesn't matter. Doing geometry is radically traditional. It returns us to the space we're all in. Geometry is the eccentric line moving outwards towards another. Knowing this actively, it becomes possible to dedicate oneself to geometry as the practice of eccentricity. This goes against what I might have thought about it before doing geometry on the telephone, in the café, or in the car, or while reading a book. I might have thought that geometry as tradition was about locating and fixing a center. But geometry is elliptical. Its center moves with the point between one person and the thinking of another. I find it very exciting now that I have experienced the eccentricity of the actual thinking that happens in the company of one's own ignorance and the speaking of others. It has become impossible to stop thinking about the vivid spiritual line that is geometry, because it is always about to become new, at the same time that it is infinite. Each line, experienced in its eccentricity, is the origin of geometry.

One of the economic problems with geometry is that it moves more slowly and unpredictably than logic does. Logic has nothing to do with meaning and the activation of a tradition in the guts. Geometry isn't the same as method. There is no absolute or necessary identity between method and the origin of geometry. Often method replaces geometry because method is economical, and so the specific eccentricity of the line has been suppressed. Logic is entirely different from geometry, which wants to situate the realization of its eccentric temporality within anyone who thinks according to its line. And yet geometry's transmission has yielded the method we call logic. You can tell the difference between geometry and logic because logic has no guts. Geometry is infinite, eccentric and historical. In actuality, geometry is useless to economics. It helps only our ignorance. Where ignorance is acknowledged as a desirable resource in thinking and living, there can be history.

Yet geometry has recourse to logic as a proof, which can be helpful. But proof isn't origin.

What about the question of time, or the coffee cup. The questioning that is geometry, its horizon of unknowing, is truly in the present, that is, in the vivid psychology and physiology of the questioner. That vividness can only express itself in the present by way of a re-enlivening of the desire of previous questioners. It's always someone else's geometry that we passionately apprehend. So the re-enacted horizon of unknowing is someone else's historical time. The time is not assumed, it is *transmitted* as a present vitality. To ask the question of geometry puts us astoundingly in the thinking of others. Our instruments pertain to their curiosity. Time is in geometry as an eccentric present that renews itself in the play of others. Each instrument is historical. The technological means that assist us in our apprehension of the present are the temporary materializations of the questioning of the others who came before us. By playing in the present with our instruments we are expanding the materiality of history, which is a spiritual materiality, in that the urgent desires of others to face their own horizons of unknowing are the very desires we ourselves feel. The use of the instruments draws a grid within which we can experience historical desire as the vividness of our thinking bodies. But the uses and methods themselves are not geometry. They help out our desire a bit. The relationship of desire to geometry is entire, and places our living in historical, spiritual time.

This sentence, for example, is an instrument. I have received the sentence as a formal tradition through the ongoing institutions of its transmission. But this sentence itself is not language. It needs language as the instruments of geometry need their makers and questioners and their embodied guts and desires. This sentence is a big help, not only as an instrument of transmission and communication, but as an instrument of thinking within myself. With the help of the sentence I can think. I can find my desire for geometry. It marks a passage so it becomes possible to return, to re-circulate, to repeatedly face the horizon of what I don't already know. But the sentence itself is not the desire to know, nor is it the knowledge. It marks something only. It pertains to history as the mark of what we don't know, which is someone else. Language is always someone else. The same for geometry. Geometry is elsewhere, at origin, at the horizon drawn by desire.

History means that everything is inherently a sum of human events. This statement doesn't have to be understood as a determinism. Any cultural fact in the present is brimming also with every event that has never been expressed although it has taken place, and every event that has taken place and then been excised from the narration of history, which is not the same as history itself, in the same way that methodology is not geometry. The entire history of the excised, the unexpressed, is inherent in every cultural present. So an act of the present can transform everything that has ever been silent in history. Something other than method emerges, something that feels new because it has not been narrated. In this way there is history that is neither determination nor law. There can be freedom in history. This freedom is a horizon.

This means that tradition, as the sum of historical a priori, replete with the repression and excision of acts, is infinite. It is always other than itself: tradition's differences are specific, as each human act is specific. The present actions also express the complete discontinuous difference of tradition as the horizon of freedom. Geometry will draw out this freedom as a line. Every line is founded upon the entire history of excised acts. Perhaps this is what zero is. I don't know. But some of geometry is undocumented and we have to think about what this undocumented history does to geometry as identity. I am speaking here as if geometry were a subject, as individuals are subjects whose particular modes of subjectivity cannot be contained by a method. What is the difference between persons and the objective historicity of human acts if both bear within them the silence of everything not expressed? Maybe duration is the only difference. Yet duration is a qualitative difference. I think that where a person has a beginning, tradition has an origin. Origin would be the infiniteness of acts inherent in the present. Beginning is that each person arises specifically with her proper beginning, and iterates that beginning in view of the certainty of her individual mortality. The specificity of a person is that she will not be repeated. She is finite. The specificity of tradition is its infinite line of transmission through the detailed accumulation of historical acts. Each act carries within it the non-identity of the undocumented, the impropriety of continuance, tradition in its lively original transmission. A person begins only in the company of tradition.

The identity of tradition, which is everything spoken as well as everything undocumented or excised, is her freedom. I can't say for certain if this is what Husserl means, but this thought followed from a patient rereading of *Origin of Geometry*. The person who acts into tradition is ready to be wrong. Geometry liberates.

A geometrical statement makes claim to an unconditioned objectivity. Is there a way for me to think about this? The inevitable and thorough conditioning of state-

ments functions as a truth-value in the discourse I have been taught. I am comfortable with the premise of conditioning. It could be interesting to set aside the inevitability of conditioning of statements for a moment. What would this achieve? What if the statement concerned freedom? Might an emancipative statement be offered substantively? I feel uncertain about entering this terrain, but I do wish to state the emancipative potential of radical tradition with unconditioned objectivity. Can a potential be objective? Here it must. I think that this is why we can continue to have a world, a horizon. What if the horizon were a line of unconditioned emancipative potential? Why would anybody ever want to draw a line if this were not so? What could be generally human beyond the statement of emancipative potential? Clearly the earth itself as an objective continuity depends upon such a universal and spirited emancipation. What other earth could geometry measure?

Yet not the earth itself, nor the particularities of historical engagements with territories, but the active conceptual relationship of persons to the earth as a radically open tradition must be the universal determinant. The origin of geometry is emancipative.

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