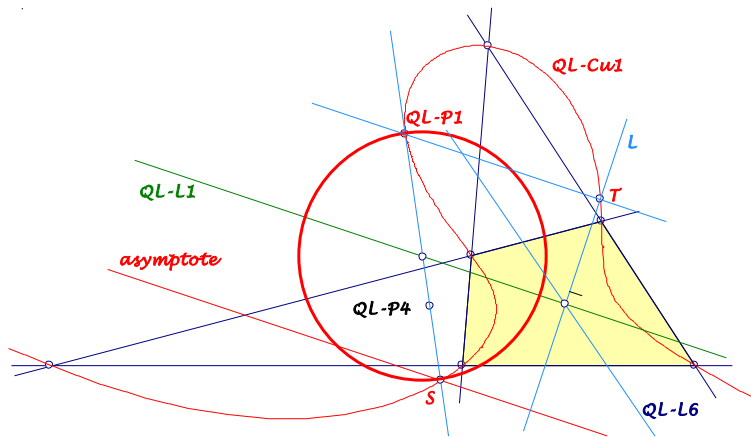


Background for these notes is:
Chris van Tienhoven: Encyclopedia of Quadri-Figures
<http://www.chrisvantienhoven.nl/>

QL-Circle wrt QL-Cu1

This circle has as diameter the Miquel-point QL-P1 and the intersection of the cubic QL-Cu1 and its asymptote.



Intersection S of QL-Cu1 and its asymptote

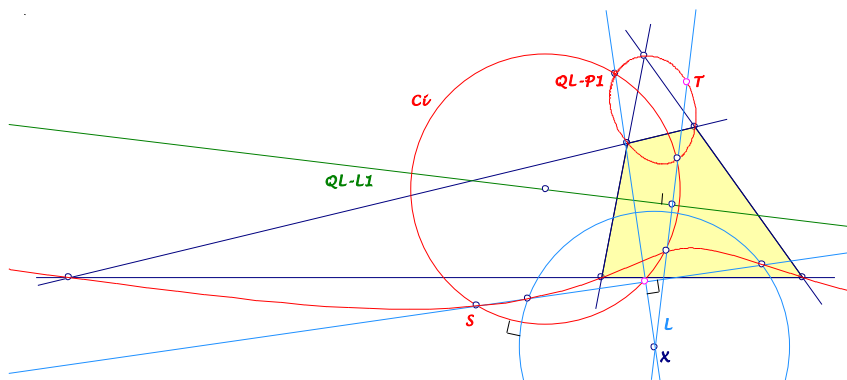
This point is already mentioned in *EQF* wrt *QL-Cu1*. It is the intersection of the asymptote and the tangent for the Miquel-point *QL-P1* wrt the cubic *QL-Cu1*. The asymptote is a parallel to the Newton-line *QL-L1* through the reflection of *QL-P1* in *QL-L1*. The tangent in *QL-P1* is *QL-P1.QL-P4*. Let *T* be the CSC-image (*QL-Tf1*) of *S*. *T* is a point on *QL-Cu1* as intersection of a parallel to *QL-L1* through *QL-P1* and a perpendicular line *L* wrt *QL-L1* through the intersection of *QL-L1* and *QL-L6*.

The new circle *Ci*

Let *Ci* be the circle with diameter *S.QL-P1*:

- *Ci* is the CSC-image of a line *L* orthogonal *QL-L1*:
$$L = T.QL-L1 \cap QL-L6.$$
- Center of *Ci* is $QL-P1.QL-P4 \cap QL-L1$, which is the CSC-image of the reflection of *QL-P1* in *L*.
- The angle bisectors at *S* wrt two CSC-partners on *QL-Cu1* intersect *QL-L1* in two points of *Ci*.

- C_i is the locus for the midpoints of the intersections of $QL-Cu1$ and lines through S .
- C_i intersects L on $QL-Cu1$, if $QL-Cu1$ is bipartite.
- C_i is the locus for the reflections of $QL-P1$ in circles through $QL-2P2$, if $QL-Cu1$ is unipartite.
- The circle C_i can be used for a simple construction of $QL-Cu1$:
Circles centered in X on L and orthogonal wrt C_i intersect lines L through S orthogonal to $X.QL-P1$ in points of the cubic $QL-Cu1$.



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