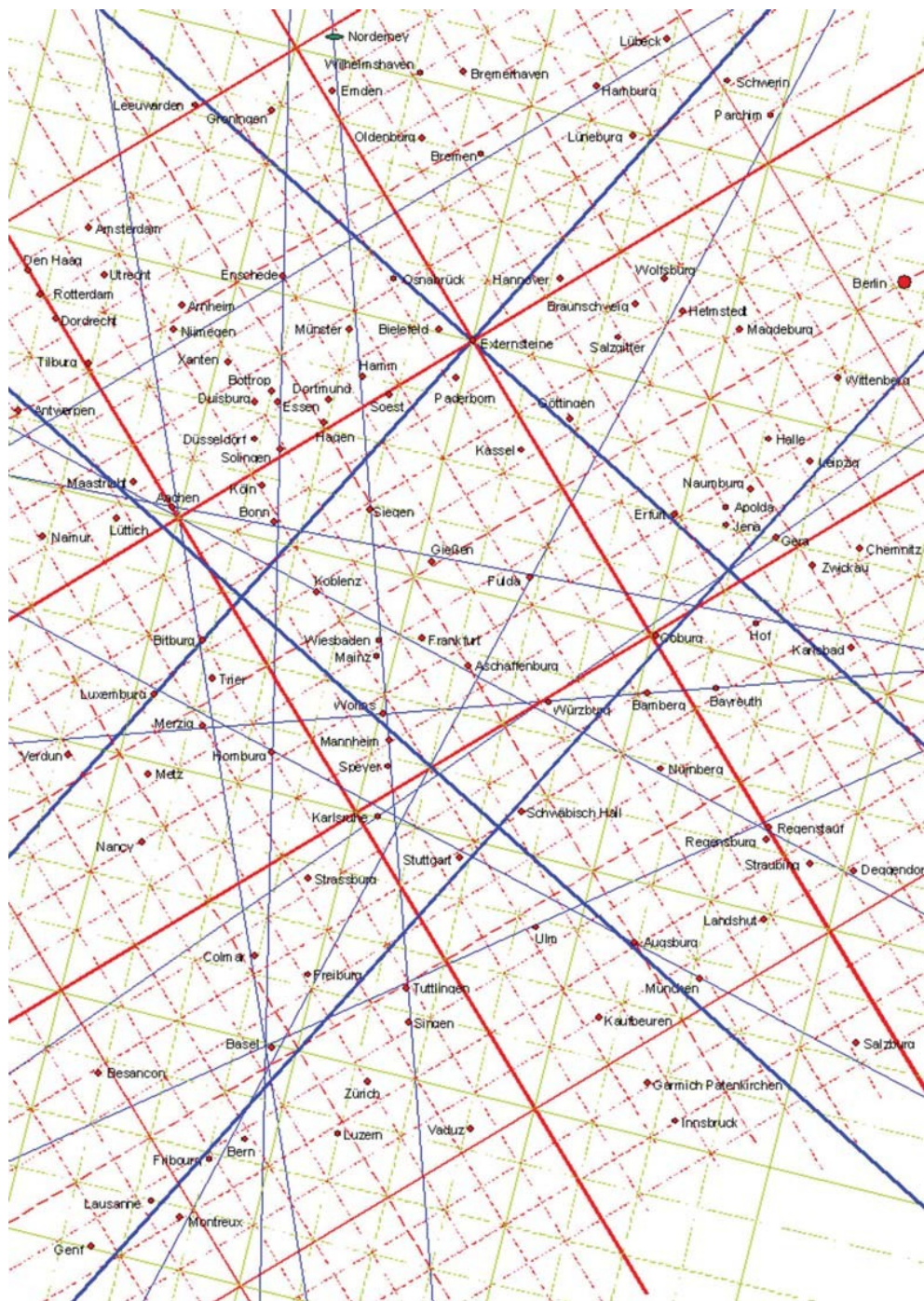


The Externstein System 2

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A second system on the western line

If a rectangular system can be constructed above the eastern line of the Externstein pyramid, then the same is true for the western line. The western line already exists, and the perpendicular line can easily be drawn at the Externsteine. Since this is a symmetrical system, the grid size is the same as in System 1. This results in the following image Basic square for the Externstein System 2. (blue)



Halving the sides of the square gives the next finer division. The next image shows the two Externstein systems 1 and 2. Möller's lines are drawn in green.



The parallels to the east and west lines are marked in black in the next image. This allows the Machalett grid to be recognised.



The Machalett grid

If we now omit all perpendiculars to the western and eastern lines, we obtain the Machalett grid for Germany. The resolution could be further increased by halving again. Möller's lines are shown in red in the image.



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Line balance

Meridian-Externstein-Pyramid

Externsteine, Marsberg, Marburg, Neckargmünd, Maulbronn Monastery, Haigerloch, Hohentwiel (Singen), Genoa, Cagliari and Ghadames are named as places associated with the Externstein meridian line. Along the line between Externsteine and Ghadames, a distance of 2417 km, all locations are located within a strip of maximum ± 12.6 km to the left and right of the line. The average alignment of the meridian line is 1.0545 degrees NE or 178.9455 degrees NW.

If we take the geographical meridian of the Externsteine as a reference line, then, with the exception of Ghadames, all locations lie within a strip of maximum ± 17 km to the left and right of the line.

The angular difference of 1 degree between the Externstein meridian line and the geographical meridian of the Externsteine is so small that both lines can be used as reference lines without significantly affecting the overall geometry.

West line Externsteine pyramid

Externsteine, Bitburg, Luxembourg, Lourdes, Madrid, Gibraltar and Lanzarote are named as places associated with the Externstein west line.

If we take the Externstein meridian line as the reference line and the quadrature angle as the directional guideline, then, with the exception of Madrid and Lanzarote, all locations along the line between the Externsteine and Gibraltar, i.e. a distance of 2080 km, are located within a tube of maximum ± 33 km to the left and right of the line.

If we take the geographical meridian of the Externsteine as a reference line and the quadrature angle as a directional guideline, then, with the exception of Madrid and Lanzarote, all locations along the line between the Externsteine and Gibraltar are located within a corridor of maximum ± 38 km to the left and right of the line.

It should also be noted that Möllers' reference to Lanzarote is only an indication of direction (towards Atlantis) and that a distance of 300 km is therefore sufficient.

Overall, both the geographical meridian of the Externsteine and the Externstein meridian line can be used as reference lines for the western line. The quadrature angle is fulfilled with sufficient accuracy by all locations except Madrid.

East line – Externsteine pyramid

Externsteine, Kassel, Coburg, Regenstein, Zagreb (Agram), Olympus, Delphi, Delos, Kappathos and Giza are named as places associated with the Externstein east line.

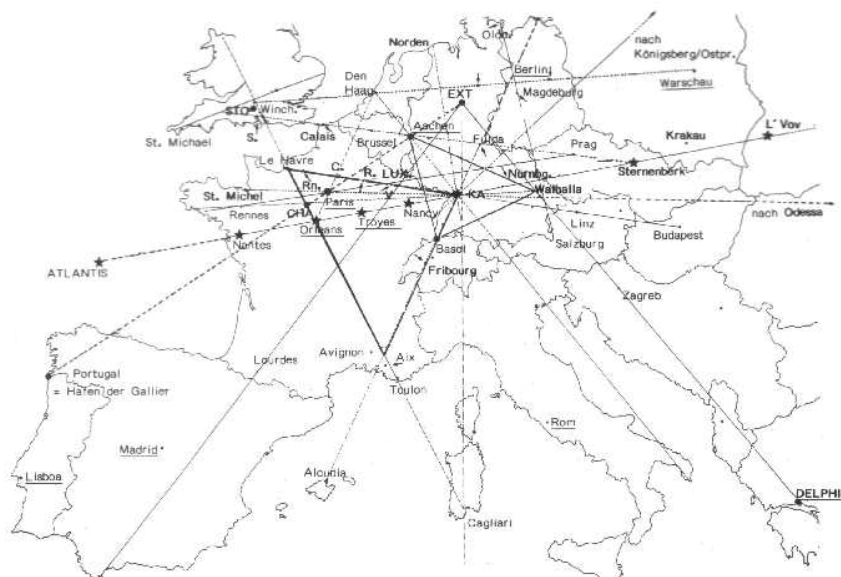
If one takes the Externstein meridian line as a reference line and the quadrature angle as a directional guideline, then only the locations in Germany lie along the line with sufficient accuracy. From Zagreb, the distances to the line become greater the further south one goes. Up to 427 km when one reaches the latitude of Giza.

If we take the geographical meridian of the Externsteine as a reference line and the quadrature angle as a directional guideline, then only the locations in Germany lie on the line with sufficient accuracy. From Zagreb, the distances to the line become greater the further south you go. Except for 373

km when you reach the latitude of Giza.

Overall, the geographical meridian of the Externsteine fits slightly better as a reference line for the eastern line than the Externstein meridian line. For the German area and approximately as far as Zagreb, the locations correspond well with the quadrature angle with sufficient accuracy.

South of Zagreb, the distances to the line become increasingly greater, which indicates a systematic error in determining the line. The deviations can be explained by looking at the following map:



The map shows that the Externsteine, Zagreb and Delphi lie on a line. This is because the curvature of the Earth has not been taken into account here. On maps covering Europe or larger areas, the curvature of the Earth does play a role. Therefore, it is no longer possible to conduct studies with a ruler, but the lines must **be calculated**.

Even Möller's lines are ultimately nothing more than sections of great circles and are therefore curved. Straight lines such as those shown on the map here are merely ideal in nature and can only be used as a guide. Approximate accuracy can only be achieved on maps that are no larger than Germany.

Failure to take this into account leads to errors or differences that become greater and greater with increasing distance. This can be seen in the example of the eastern line.

Conclusion

The greatest accuracy for the Externstein Pyramid is achieved when the **geographical meridian of the Externsteine** is taken as the reference line.

The western line is occupied with sufficient accuracy by the locations mentioned. The locations on the eastern line up to Zagreb fulfil the quadrature angle, but further south the deviations of the locations from the line become increasingly greater (up to 370 km).

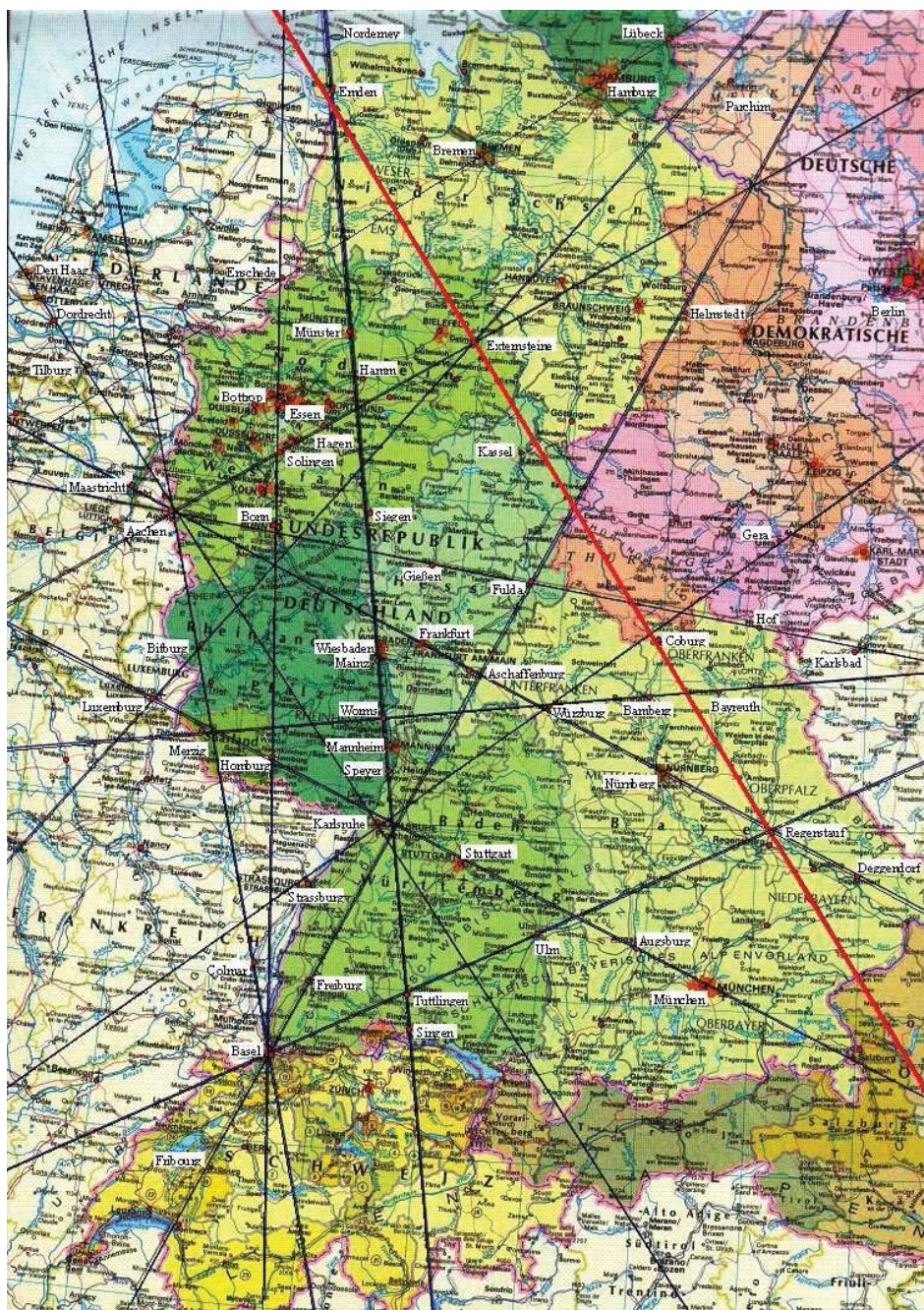
In Central Europe, the Externstein pyramid is sufficiently accurate as a quadrature triangle.

GEOMETRIC DETERMINATION IN LANDSCAPES

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East Line Externstein Pyramid

The information provided by Jens M. Möller and Walther Machalett indicates the following locations on the eastern line: **Externsteine, Kassel, Regenstauf, Zagreb (Agram), Olympus, Delphi, Delos, Kappathos, Giza** Marking these locations on a map of Germany yields the following result:



The map also reveals the following additional locations:

Emden, Coburg

The geographical coordinates for all locations listed are as follows:

Emden

Phi = 53° 22' N geographical latitude

Lambda= 07° 12' E geographical longitude

Externsteine

Phi = 51° 52' N geographical latitude

Lambda= 08° 55' E geographical longitude

Kassel

Phi = 51° 19' N geographical latitude

Lambda= 09° 30' E geographical longitude

Coburg

Phi = 50° 16' N geographical latitude

Lambda= 08° 58' E geographical longitude

Regenstauf (Walhalla)

Phi = 49° 07' N geographical latitude

Lambda= 09° 30' E geographical longitude

Zagreb (Agram)

Phi = 45° 48' N geographical latitude

Lambda= 15° 59' E geographical longitude

Olymp

Phi = 40° 05' N geographical latitude

Lambda= 22° 21' E geographical longitude

Delphi

Phi = 38° 29' N geographical latitude

Lambda= 22° 30' E geographical longitude

Delos

Phi = 37° 24' N geographical latitude

Lambda= 25° 16' E geographical longitude

Kappathos

Phi = 35° 35' N geographical latitude

Lambda= 27° 08' E geographical longitude

Giza

Phi = 29° 59' N geographical latitude

Lambda= 31° 08' E geographical longitude

Calculation of the mean direction

If the geographical coordinates (latitude, longitude) of two locations are known, the distance and directions can be calculated using the so-called second geodetic main task. The distance **X** (as an angle) between the two points is calculated as follows:

$$\cos X = \sin B_1 \cdot \sin B_2 + \cos B_1 \cdot \cos B_2 \cdot \cos(L_2 - L_1)$$

And the angle seen from the point of origin is:

$$\sin \alpha = \frac{\cos B_2 \cdot \sin(L_2 - L_1)}{\sin X}$$

Starting from a point of origin, the angles to the individual locations on the line can now be calculated.

From Externsteine to	direction
Emden	26.0519 NW
Externsteine	0
Kassel	33.6103 NW
Coburg	39.6409 NW
Regenstauf	37.9060 NW
Zagreb	40.1925 NW
Olymp	43.4326 NW
Delphi	40.6335 NW
Delos	44.8829 NW
Kappathos	45.6738 NW
Giza	45.4736 NW

Only the directions for Emden, Kassel and Regnstauf differ from the other directions. They are therefore not taken into account for the time being when determining the average direction.
If you calculate the average value from the remaining values, you get the average orientation of the line. The average orientation of the east line is **137.1529 degrees NE** or **42.8471 degrees NW**.

Determining the ideal direction 1

In this case, there is no need to determine a mean direction, as the direction is already predefined by the boundary conditions.

Since the Externstein pyramid is a square triangle, the angle at the top of the pyramid is 38.146 degrees. The inclination of the meridian line must be subtracted from this by 1.0545 degrees.

The orientation of the east line is **37.0915 degrees NW** or **142.9085 degrees NE**.

Determining the ideal direction 2

Since the Externstein pyramid is a square triangle, the angle at the top of the pyramid is 38.146 degrees. This is now taken as the reference angle, i.e. starting from the geographical meridian of the Externsteine.

The alignment of the west line is **38.146 degrees NW** or **141.854 degrees NE**.

Differentiation of locations

According to the criteria for determining geometry, a line must be marked by at least **four** points.

For differentiation purposes, only those points that lie **on** or **at** a line according to the criteria for determining geometry are taken as actual line locations. The adjacent locations are then only needed for supplementary consideration.

According to the criteria for determining geometry, the surroundings of any geographical location with a radius greater than 1000 metres are called **the area** surrounding the location. Area points should be sufficient for handling the locations specified here and their relationship to the east line.

The relationships of a location to a line according to the previous definition for environment points can

then simply transferred to the area points.

Considering that the 1000-metre radius of an area point represents the centre of a modern city, the criteria for points can be differentiated somewhat further.

Relationship to the line	Radius
Exactly on	up to 500 m
up to	500 to 1000 m
to	1000 to 5000 m
nearby	5000 m to 50 km

Calculation of distances to the ideal line 1

With the direction 37.0915 NW now determined, the distance **s** between a location and the line can be calculated. If **X** is the distance between the two points and **delta alpha** is the difference in direction from the specified direction, then the distance can be calculated using the following equation

$$\sin s = \sin X \cdot \sin \Delta\alpha$$

If the angles are used in radians, the approximate distance of a location (in kilometres) from the line can be calculated as follows:

$$s = 6370 \cdot \arcsin(\sin X \cdot \sin \Delta\alpha)$$

Location	Distance [km] to the line	Ratio to the line
Emden	24.835	Near
Externsteine	0	exactly at
Kassel	4,446	at
Coburg	10,155	near
Regenstauf	5,413	at
Zagreb	45,796	near
Olymp	181,920	
Delphi	111,105	
Delos	273,755	
Kappathos	337,993	
Giza	426,895	

Emden, Externstein, Kassel, Coburg, Regenstauf and Zagreb are located on or near the eastern line.

Along the line between Externsteine and Zagreb, a distance of 980 km, the aforementioned locations are situated in a corridor of maximum ± 45 km to the left and right of the line.

Calculation of the distances to the ideal line 2

With the ideal direction 2 found, i.e. 38.146 NW, and the geographical meridian of the Externsteine as the reference line, the distance **s** can now be determined as before. This results in the following distances:

Location	Distance [km] to the line	Relationship to the line
----------	---------------------------	--------------------------

Emden	27.174	Near
Externsteine	0	exactly at
Kassel	5,791	at
Coburg	5,956	to
Regenstauf	1,595	to
Zagreb	30,231	near
Olymp	151,756	
Delphi	78,050	
Delos	236,871	
Kappathos	296,688	
Giza	373,439	

Emden, Externstein, Kassel, Coburg, Regenstauf and Zagreb are located on or near the eastern line.

Along the line between Externsteine and Zagreb, a distance of 980 km, the aforementioned locations are situated in a corridor of maximum ± 30 km to the left and right of the line.

Calculation of the distances to the centre line

With the mean direction of 42.8471 NW now determined, the distance **s** can be calculated as before. This results in the following distances:

Location	Distance [km] to the line
Emden	37.476
Externsteine	0
Kassel	11,754
Coburg	12,769
Regenstauf	32,799
Zagreb	39,210
Olymp	16,830
Delphi	69,463
Delos	71,714
Kappathos	111,649
Giza	134,106

GEOMETRY DETERMINATION IN LANDSCAPES

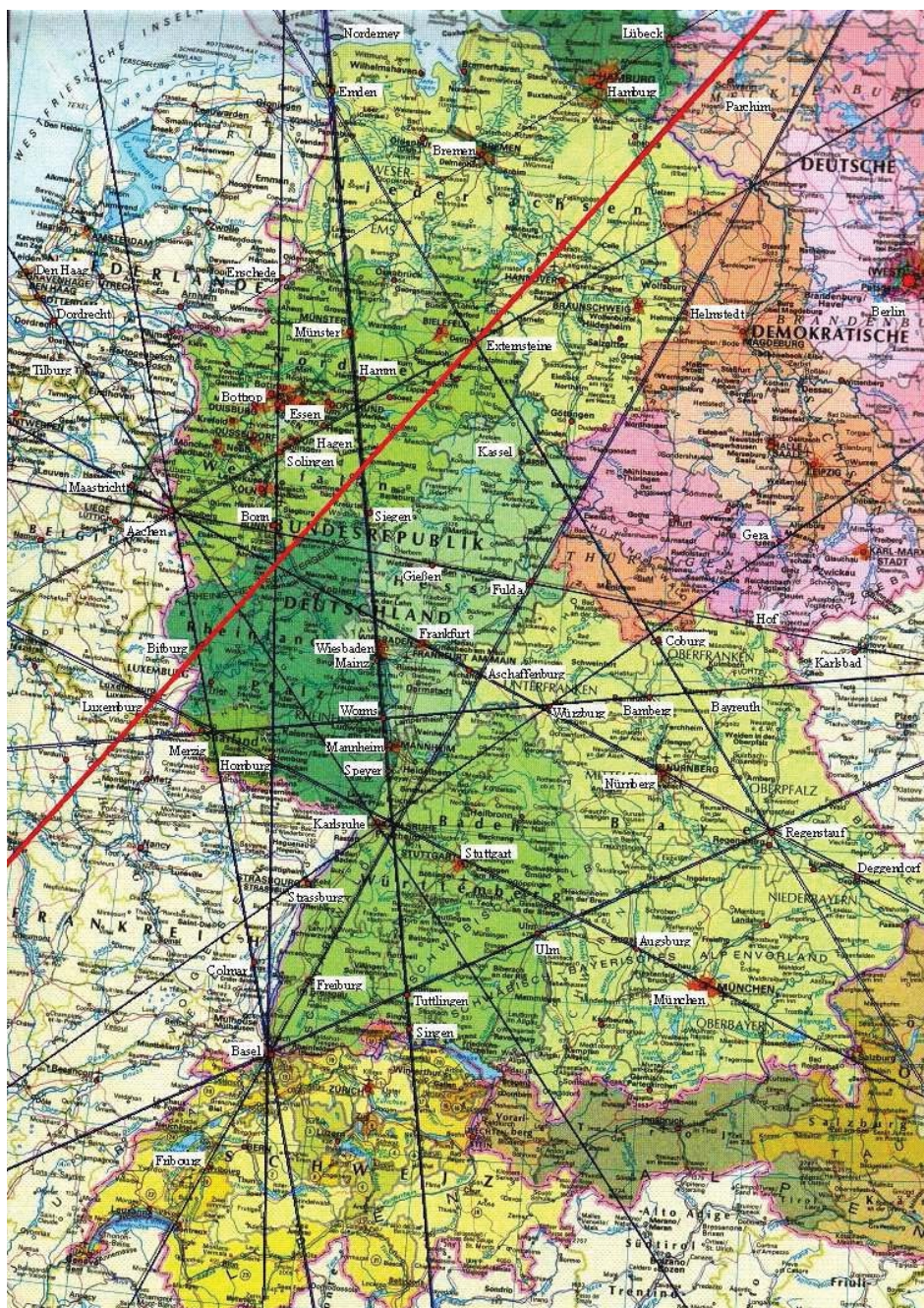
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West Line Externstein Pyramid

The information provided by Jens M. Möller and Walther Machalett reveals the following locations on the West

Line: **Externsteine, Bitburg, Luxembourg, Lourdes, Madrid, Gibraltar, Lanzarote (towards Atlantis)**

Marking these locations on a map of Germany yields the following result:



The geographical coordinates for the specified locations are as follows:

Externsteine

Phi = 51° 52' N geographical latitude

Lambda= 08° 55' E geographical longitude

Bitburg

Phi = 49° 58' N geographical latitude

Lambda= 08° 55' E geographical longitude

Luxembourg

Phi = 50° 00' N geographical latitude

Lambda= 06° 00' E geographical longitude

Lourdes

Phi = 43° 06' N geographical latitude

Lambda = 00° 03' W geographical longitude

Madrid

Phi = 40° 25' N geographical latitude

Lambda = 03° 42' W geographical longitude

Gibraltar

Phi = 36° 08' N geographical latitude

Lambda = -05° 21' W geographical longitude

Lanzarote

Phi = 29° 03' N geographical latitude

Lambda = 13° 37' W geographical longitude

Calculation of the average direction

If the geographical coordinates (latitude, longitude) of two locations are known, the distance and directions can be calculated using the so-called second geodetic main task. The distance **X** (as an angle) between the two points is calculated as follows:

$$\cos X = \sin B_1 \cdot \sin B_2 + \cos B_1 \cdot \cos B_2 \cdot \cos(L_2 - L_1)$$

And the angle seen from the point of origin is:

$$\sin \alpha = \frac{\cos B_2 \cdot \sin(L_2 - L_1)}{\sin X}$$

Starting from a point of origin, the angles to the individual locations on the line can now be calculated. The Externsteine serve as the reference point.

From Externsteine to	Direction
Bitburg	39.2684 NE
Luxembourg	45.6990 NE
Lourdes	38.0514 NE
Madrid	42.0992 N
Gibraltar	38.3499 N
Lanzarote	44.9762 NE

As can be seen, the direction values vary greatly and no clear direction can be determined. Therefore, all points are taken to determine an average direction.

The average orientation of the west line is then **41.4074 degrees NE** or **138.5926 NW**.

Determining the ideal direction 1

In this case, there is no need to determine an average direction, as the direction is already predefined by the boundary conditions.

Since the Externstein pyramid is a square triangle, the angle at the top of the pyramid is 38.146 degrees. Added to this is the inclination of the meridian line at 1.0545 degrees.

The alignment of the west line is **39.2 degrees NE** or **170.8 degrees NW**.

Determining the ideal direction 2

Since the Externstein pyramid is a quadrature triangle, the angle at the top of the pyramid is 38.146 degrees. This is now taken as the reference angle, i.e. starting from the geographical meridian of the Externsteine.

The alignment of the west line is **38.146 degrees NE** or **141.854 degrees NW**.

Differentiation of locations

According to the criteria for determining geometry, a line must be marked by at least **four** points.

For differentiation, only those points that, according to the criteria for determining geometry, lie **on** or **at** a line are taken as actual line locations. The adjacent locations are then only needed for supplementary consideration.

According to the criteria for determining geometry, the surroundings of any geographical location with a radius greater than 1000 metres are called **the area surroundings** of the location. Area points should be sufficient for dealing with the locations specified here and their relationship to the west line.

The relationships of a location to a line according to the previous definition for environment points can then be easily transferred to the area points.

Considering that the 1000-metre radius of an area point represents the centre of a modern town, the criteria for points can be differentiated somewhat further

Relationship to the line	Radius
Exactly	up to 500 m
to	500 to 1000 m
to	1000 to 5000 m
nearby	5000 m to 50 km

Calculation of distances to the ideal line 1

With the direction 39.2 NE now determined, the distance **s** between a location and the line can be calculated.

If **X** is the distance between the two points and **delta alpha** is the difference in direction from the specified direction, then the distance can be calculated using the following equation

$$\sin s = \sin X \cdot \sin \Delta\alpha$$

If the angles are used in radians, the approximate distance of a location (in kilometres) from the line can be calculated as follows:

$$s = 6370 \cdot \arcsin(\sin X \cdot \sin \Delta\alpha)$$

Location	Distance [km] to the line	Relationship to the line
Externsteine	0	Exactly on
Bitburg	0,321	exactly at
Luxembourg	32,950	near
Lourdes	23,576	near
Madrid	79,932	
Gibraltar	30,316	Near
Lanzarote	303,979	

Externstein, Bitburg, Luxembourg, Lourdes and Gibraltar are located **on** or **near** the western line.

Along the line between Externsteine and Gibraltar, a distance of 2080 km, the aforementioned locations are situated in a corridor of maximum ± 33 km to the left and right of the line.

Calculation of the distances to the ideal line 2

With the ideal direction 2 found, i.e. 38.146 NE, and the geographical meridian of the Externsteine as the reference line, the distance **s** can now be determined as before. This results in the following distances:

Location	Distance [km] to the line	Relationship to the line
Externsteine	0	Exactly on
Bitburg	5,273	to
Luxembourg	38,265	near
Lourdes	1,942	to
Madrid	108,941	
Gibraltar	7,273	Near
Lanzarote	359,258	

Externstein, Bitburg, Luxembourg, Lourdes and Gibraltar are located **on** or **near** the western line.

Along the line between Externsteine and Gibraltar, a distance of 2080 km, the places mentioned are located in a corridor of maximum ± 38 km to the left and right of the line.

Calculation of the distances to the centre line

With the centre direction of 41.4074 NE now determined, the distance **s** can be calculated as before. This results in the following distances:

Location	Distance [km] to the line
Externsteine	0
Bitburg	10,047
Luxembourg	21,785
Lourdes	68,851
Madrid	19,080
Gibraltar	108,993
Lanzarote	187,967

GEOMETRY DETERMINATION IN LANDSCAPES

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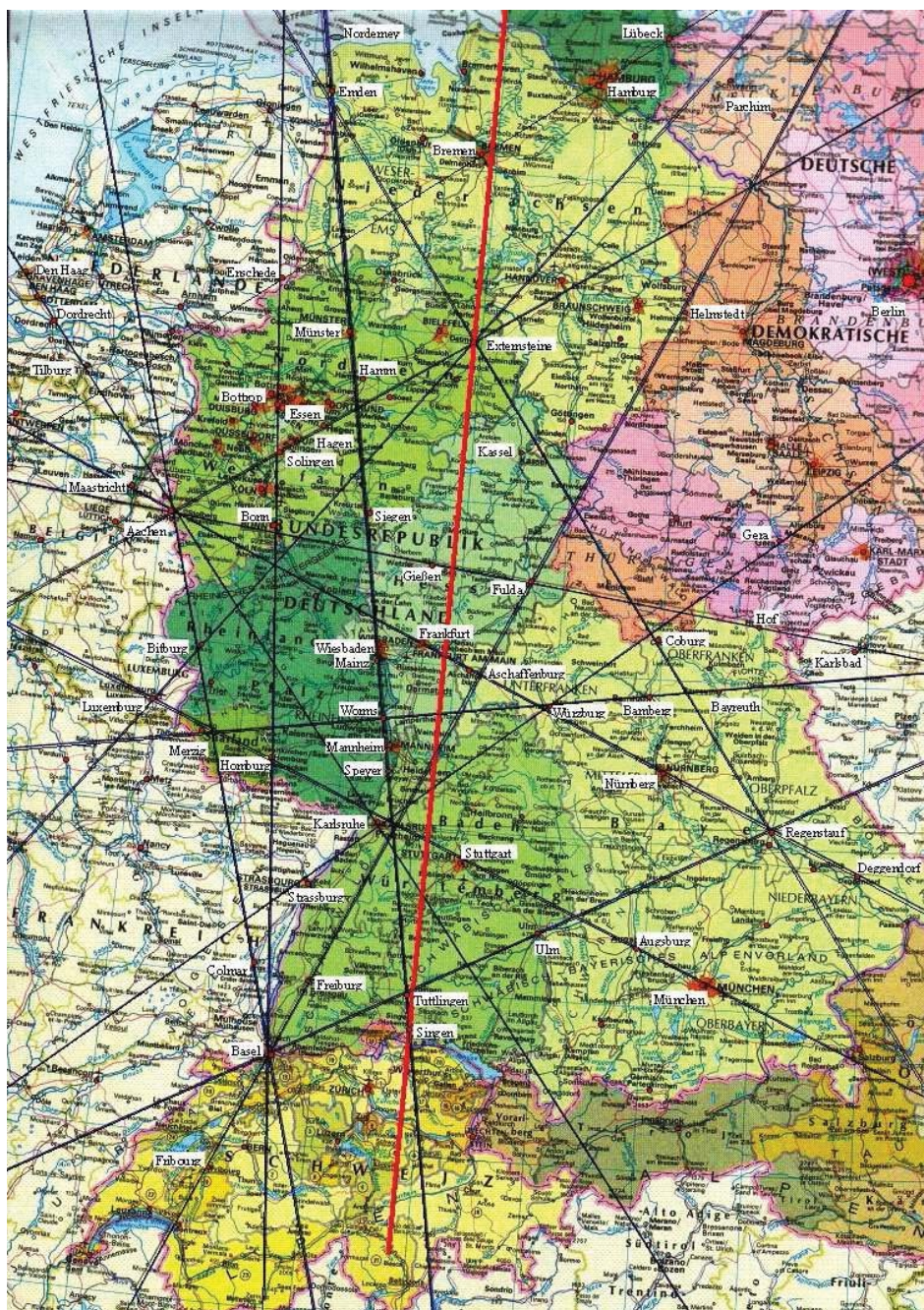
Meridian-Externstein Pyramid

In order to analyse the Externstein Pyramid with its east and west lines, it is first necessary to determine the meridian line. The "meridian" of the Externstein Pyramid **does not** run parallel to a geographical meridian, but is slightly tilted to it. As a result, the entire square pyramid of the Externsteine is also slightly slanted in the landscape. This must be taken into account when determining the direction of the lines.

The information provided by Möller and Machalett gives the following locations on the meridian line of the Externstein Pyramid:

Externsteine, Marsberg, Marburg, Neckargmünd, Maulbronn Monastery, Haigerloch, Hohentwiel (Singen), Genoa, Cagliari, Ghadames

Plotting these locations on a map of Germany yields the following result:



The geographical coordinates for all the locations listed are:

Externsteine

Phi = 51° 52' N geographical latitude

Lambda= 08° 55' E geographical longitude

Marsberg

Phi = 51° 27' N geographical latitude

Lambda= 08° 51' E geographical longitude

Marburg

Phi = 50° 49' N geographical latitude

Lambda= 08° 46' E geographical longitude

Neckargemünd

Phi = 49° 24' N geographical latitude

Lambda= 08° 48' E geographical longitude

Maulbronn Monastery

Phi = 49° 00' N geographical latitude

Lambda= 08° 49' E geographical longitude

Haigerloch

Phi = 48° 22' N geographical latitude

Lambda= 08° 48' E geographical longitude

Singen

Phi = 47° 46' N geographical latitude

Lambda= 08° 50' E geographical longitude

Genoa

Phi = 44° 25' N geographical latitude

Lambda= 08° 57' E geographical longitude

Cagliari

Phi = 39° 13' N geographical latitude

Lambda= 09° 07' E geographical longitude

Ghadames

Phi = 30° 08' N geographical latitude

Lambda= 09° 30' E geographical longitude

Calculation of the mean direction

If the geographical coordinates (latitude, longitude) of two locations are known, the distance and directions can be calculated using the so-called second geodetic main task. The distance **X** (as an angle) between the two points is calculated as follows:

$$\cos X = \sin B_1 \cdot \sin B_2 + \cos B_1 \cdot \cos B_2 \cdot \cos(L_2 - L_1)$$

And the angle seen from the point of origin is:

$$\sin \alpha = \frac{\cos B_2 \cdot \sin(L_2 - L_1)}{\sin X}$$

Starting from a point of origin, the angles to the individual locations on the line can now be calculated. The Externsteine are taken as the reference point here.

From Externsteine to	Direction
Externsteine	0
Marsberg	5.6845 NE
Marburg	5.1582 NE
Neckargemünd	1.7636 NE
Maulbrunn Monastery	1.3116 NE

Haigerloch	1.2694 NE
Singen	0.7834 NE
Genoa	0.1836 NE
Cagliari	0.7075 NE
Ghadames	1.3623 NE

Only the directions for Marsberg and Marburg deviate significantly from the other directions. They are therefore not taken into account for the time being when determining the average direction.

If the mean value is calculated from the remaining values, the average orientation of the line is also obtained here. The average orientation of the meridian line is **1.0545 degrees NE** or **178.9455 degrees NW**.

Differentiation of locations

According to the criteria for determining geometry, a line must be defined by at least **four** points.

For differentiation purposes, only those points that lie **on** or **at** a line according to the criteria for determining geometry are taken as actual line locations. The adjacent locations are then only needed for supplementary consideration.

According to the criteria for determining geometry, the surroundings of any geographical location with a radius greater than 1000 metres are called **the area surroundings** of the location. Area points should suffice for handling the locations specified here and their relationship to the meridian line.

The relationships of a location to a line according to the previous definition for environment points can then be easily transferred to the area points.

Considering that the 1000-metre radius of an area point represents the centre of a modern city, the criteria for points can be differentiated somewhat further

Relationship to the line	Radius
Exactly	up to 500 m
to	500 to 1000 m
to	1000 to 5000 m
nearby	5000 m to 50 km

Calculation of distances to the line

With the average direction found, it is now possible to determine the distance **s** between a location and the average line. If **X** is the distance between the two points and **delta alpha** is the difference in direction from the average direction, then the distance can be calculated using the following equation

$$\sin s = \sin X \cdot \sin \Delta\alpha$$

If the angles are used in radians, the approximate distance of a location (in kilometres) from the line can be calculated as follows:

$$s = 6370 \cdot \arcsin(\sin X \cdot \sin \Delta\alpha)$$

Location	Distance [km] to the line	Relationship to the line
----------	---------------------------	--------------------------

Externsteine	0	Exactly on
Marsberg	3,766	at
Marburg	8,387	near
Neckargemünd	3,394	at
Maulbronn Monastery	1,430	to
Haigerloch	1,459	to
Singen	2,155	to
Genoa	12,554	near
Cagliari	8,448	near
Ghadames	12,674	Near

Externsteine, Marsberg, Neckargemünd, Maulbronn Monastery, Haigerloch and Singen are located on or near the meridian line.

Along the line between Externsteine and Ghadames, a distance of 2,417 km, all locations are situated within a corridor of maximum ± 12.6 km to the left and right of the line.

If we take a map with the Machalett grid for Germany from the previous study and plot the Externstein meridian line, Singen lies sufficiently close to the meridian line.



Calculation of the distances to the geographical meridian

If we take the geographical meridian of the Externsteine as the direction, we can also determine the distance **s** between a location and the geographical meridian. If **X** is the distance between the two points and **delta alpha** is the directional difference to the geographical meridian, the distance can be calculated using the following equation

$$\sin s = \sin X \cdot \sin \Delta\alpha$$

If the angles are used in radians, the distance of a location (in kilometres) from the geographical meridian can be calculated approximately as follows:

$$s = 6370 \cdot \arcsin(\sin X \cdot \sin \Delta\alpha)$$

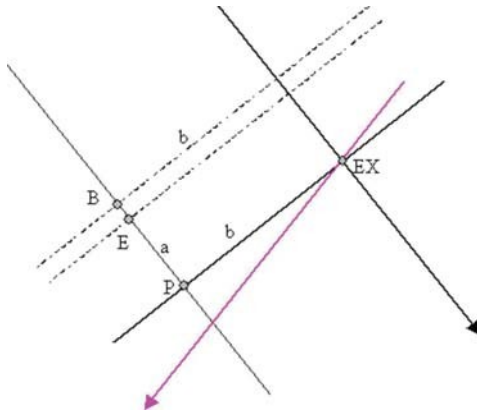
Location	Distance [km] to the meridian	Relationship to the meridian
Externsteine	0	exactly on
Marsberg	4,619	to
Marburg	10,536	near
Neckargemünd	8,441	near
Maulbronn Monastery	7,294	near
Haigerloch	8,617	near
Singen	6,227	near
Genoa	2,647	at
Cagliari	17,227	near
Ghadames	56,089	near

The Externstein System

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Wewelsburg

Research into the Ruhr region has shown that the alignment of the eastern line of the Externstein pyramid and the associated grid were used in the landscape structuring of the area. The quadrant line (parallel to the eastern line) between Bottrop (B) and Essen (E) was found to be 10,800 metres.



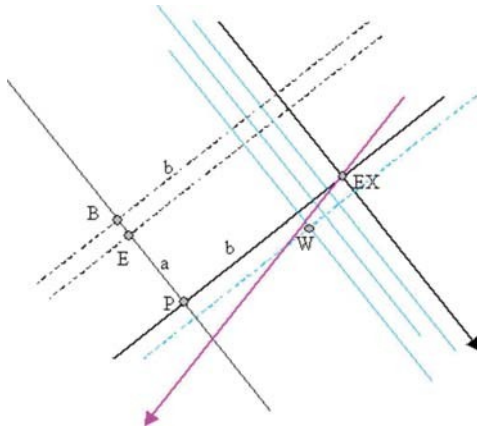
If we take the two points, i.e. the point in Essen (E) and the Externsteine (EX) as a basis (since a straight line runs through both points and these are parallel to each other), the distance between the two straight lines (distance b) can be determined using an approximation method. This results in a distance of $131,382.6 \text{ m} \pm 300 \text{ m}$.

The quadrature distance of 10,800 metres fits into this approximately 12 times.

If you go there and divide the distance between the parallels (distance b) by twelve, this gives a value of $10948.5 \text{ m} \pm 25 \text{ m}$.

The magenta line is the western line of the Externstein pyramid.

If we now consider the Externsteine as the centre of a coordinate system, then the east side of the Externstein pyramid is the y-axis of the system. If we take the value of 10,948.5 m as the grid size, we arrive at a surprising result for Wewelsburg Castle.



As can be seen in the image, you only need to enter three grid lengths horizontally and one grid length vertically into the coordinate system to reach Wewelsburg Castle. **This means that Wewelsburg Castle is located in the 1:3 grid** (see pimath.de – Geomancy in the Ruhr Area – Chapter: [Generated Grids](#))

In addition, the west side of the Externstein pyramid (magenta line) runs **close** to Wewelsburg Castle, and the location of the castle is appropriate **at the tip** of the Externstein pyramid.

The castle thus has a direct **triple** connection to the Externsteine and is therefore clearly oriented towards them. **This is, so to speak, the geomantic secret of Wewelsburg Castle.**

According to Nigel Pennick's book "Hitler's Secret Sciences", around 1934 Himmler assumed that a geomantically central location would enable him and his black order to psychologically influence the whole of Germany. Geomancers in the Ahnenerbe chose an old fortress in Westphalia for this location – Wewelsburg Castle.

This example illustrates that all major architectural and landscape projects undertaken by the Nazis were always also geomantic projects.

This may also explain Himmler's geomantic interest in Wewelsburg Castle: he probably hoped that the connection to the Externsteine would give him influence over the German and European grid system. This can be seen as an energetic attack by the Nazis on the geomantic foundations of Europe.

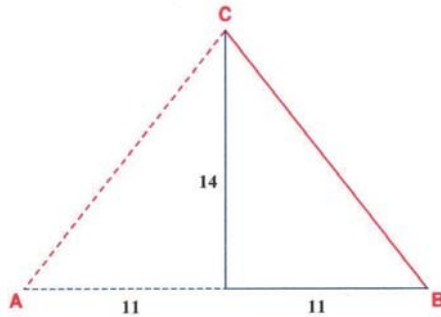
It should therefore be clear that the National Socialists were merely attempting to use this ancient knowledge for their own purposes. The consequence is that (grand) geomancy in Germany is not a National Socialist concept, but a much, much older plan.

The Externsteine system

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Squaring the circle

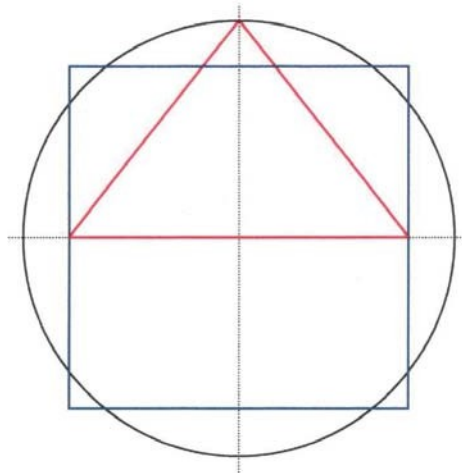
If you cut through the Pyramid of Cheops in a north-south or east-west direction, the cross-section forms a triangle. The triangle has very specific angles and ratios (14:11), which indicate that the squaring of the circle or an approximation was used here, i.e. the number PI (or an approximation) was used in the construction.



In 1882, the German mathematician Ferdinand von Lindemann (1852-1939) proved that pi is a transcendental number, i.e. pi is infinite and non-periodic. The consequence is that it is not possible to construct the number pi exactly using a ruler and compass, i.e. the geometric squaring of the circle.

This means that the existing geometric construction relating to squaring the circle should be regarded as an approximate solution. (see pimath.de – Squaring the circle)

The squaring is usually represented as shown in the following image:

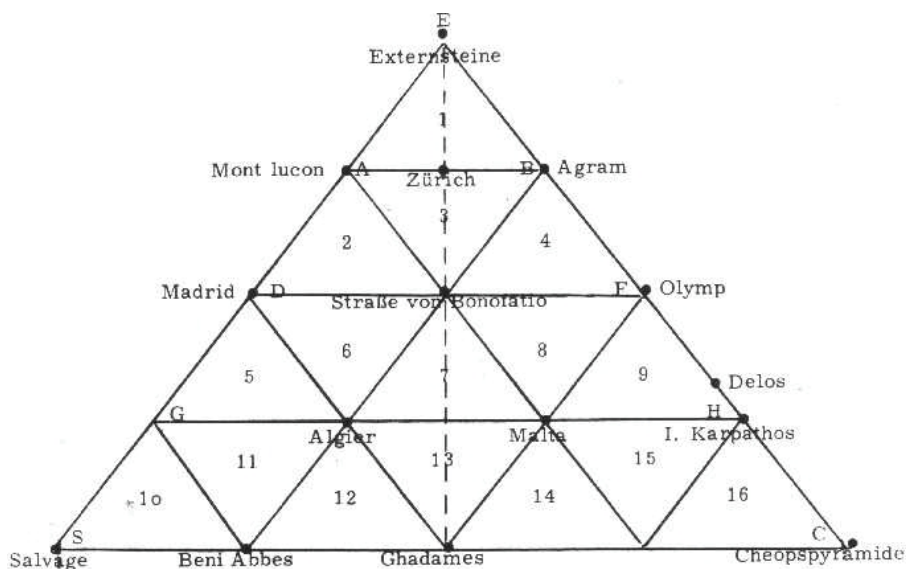


The base of the triangle corresponds to one side of the square and the height of the triangle is equal to the radius of the circle. The circle and the square then have the same circumference.

This explains why the **quadrature triangle** is called the Cheops pyramid.

The Externstein Pyramid by Walther Machalett

Also worth mentioning here is the so-called Externstein Pyramid according to Walther Machalett. The apex of this **square triangle** is formed by the Externsteine. The other two corners of the triangle are formed by the locations Salvage (Atlantis – today Lanzarote, Tenerife) and Giza (Pyramid of Cheops).



The Externstein Pyramid encompasses a space that contains the most important mystery sites and places of worship for the development of Central Europe.

Jens Möller gives the following locations for the western line of the Externstein pyramid:

Externsteine – Bitburg – Luxembourg – Lourdes – Gibraltar – Canary Islands.

According to Jens Möller, the eastern line is formed by the following places:

Externsteine – Kassel – Regenstein – Zagreb – Delphi – Giza.

If you look closely at Machalett's map, you will see that Giza is not directly on the corner, but just off it. This is correct, as Giza is located about 370 km away from the ideal square line. If you calculate the locations (from Möller) and the corresponding east and west lines, you will see that almost all other locations in Europe lie approximately on the respective line, i.e. the distance to the line is less than 50 km.

What is striking about Machalett's Externstein pyramid is the systematic filling of the triangle with east and west lines. This means that Machalett assumed a network spanning Europe.

If a larger geometry exists, it is to be expected that it also exists on a smaller, i.e. regional, scale. Or vice versa: the old regional structures can then simply be understood as reflections of higher-level geomantic networks or grids.

The lines of Jens M. Möller

The same conclusion about a European network can be reached by analysing Möller's lines. Here it becomes apparent that the lines are not randomly distributed across the landscape, but are part of a larger grid system.



The above map of Möller's lines shows the following lines:

Name of the line	Places on the line

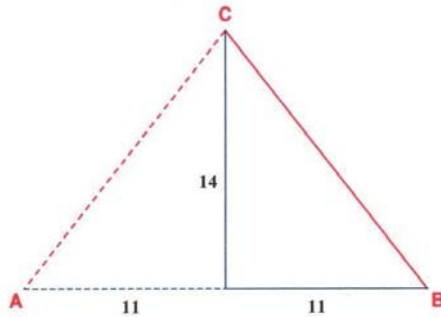
Externstein Pyramid	
Meridian line	Externsteine, Marsberg, Marburg, Neckargmünd, Maulbronn Monastery, Haigerloch, Hohentwiel (Singen), Genoa, Cagliari
Eastern line	Externsteine (Horn), Kassel, Regenstauf, Zagreb, Delphi (Cheops)
Western line	Externsteine, Bitburg, Luxembourg (Lichtburg), Lourdes, Gibraltar, Canadian Islands (Atlantis)
Atlantis line	Northern tip of Portugal, Chartres, Paris, Aachen, Soest, Externsteine
Three Emperors' Cathedral Line	Norderney, Hamm, Werl, Kreuztal, Siegen, Mainz, Worms, Speyer, Karlsruhe, Berneck, Hohentwiel (Singen)
Siegfried Line	Rennes, Paris, Burg Esch, Worms, Lorsch, Michelstadt, Würzburg, Bayreuth, Prague
Germany Line	Aix-en-Provence, Fribourg (Belchen, Switzerland), Basel, Belchen (Freiburg), Herrenalb, Karlsruhe, Neckargmünd, Mespelbrunn Castle, Fulda, Brocken, (Eisenach?), Helmstedt
Lodge Line	Perth, The Hague, Aachen, Kirn, Kalmit, Karlsruhe, Bebenhausen, Lichtenstein, Zwiefalten, Bussen, Stein (Allgäu), Nebelhorn, Leuca
Bonifacius Line	Southampton, Brussels, Aachen, Fulda, Prague, Sternberk
Nomen Line	Regenstauf (Walhalla), Nuremberg, Würzburg, Frankfurt (Main), Königstein (Taunus), Aachen
Königs Line	Hochkönigsbourg (Alsace), Königsbach/Stein, Baden-Baden, Karlsruhe, Bretten, Königsberg (Bavaria), Haßfurt (Bavaria), Veste Coburg, Gera, Königsberg (Prussia-Kaliningrad)
	Basel, Hochkönigsburg, Trier, Aachen
	Basel, Beuron, Zwiefalten, Ulm, Dillingen, Regenstauf (Walhalla)
	Basel, Homburg (Saar), Idar-Oberstein, Bonn, Essen, Enschede
	Luxembourg, Dahn, Bergzabern, Karlsruhe, Stuttgart, Esslingen, Augsburg, Königsbrunn, Marquartstein
	Enschede, Bremen, Hamburg, Lübeck

The Externstein System

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Squaring the circle

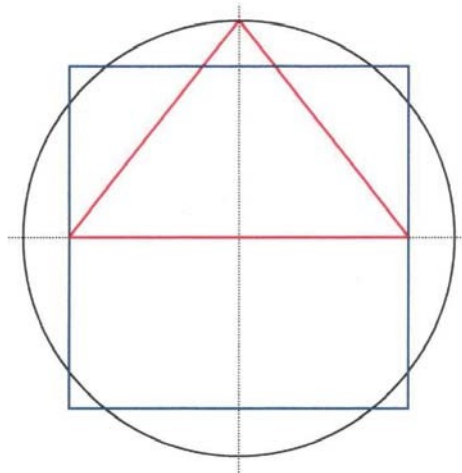
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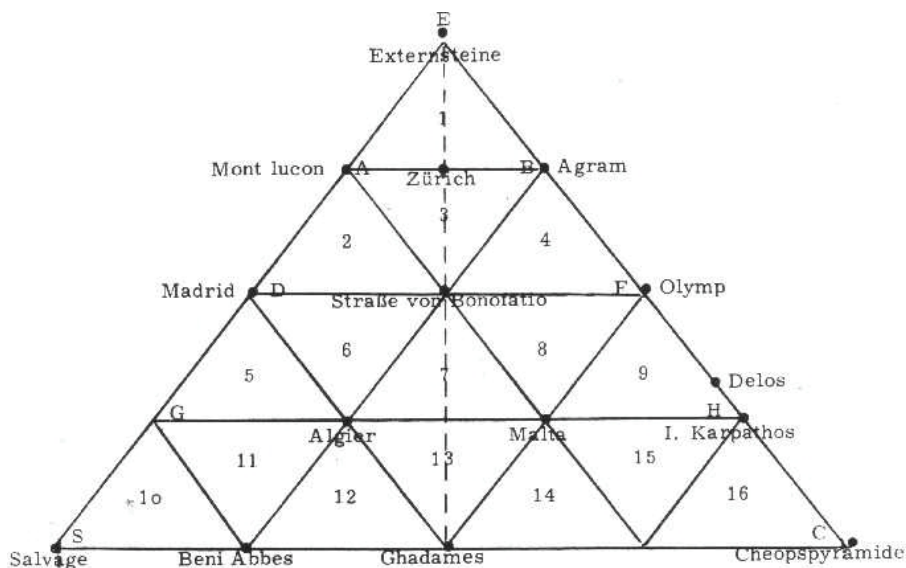


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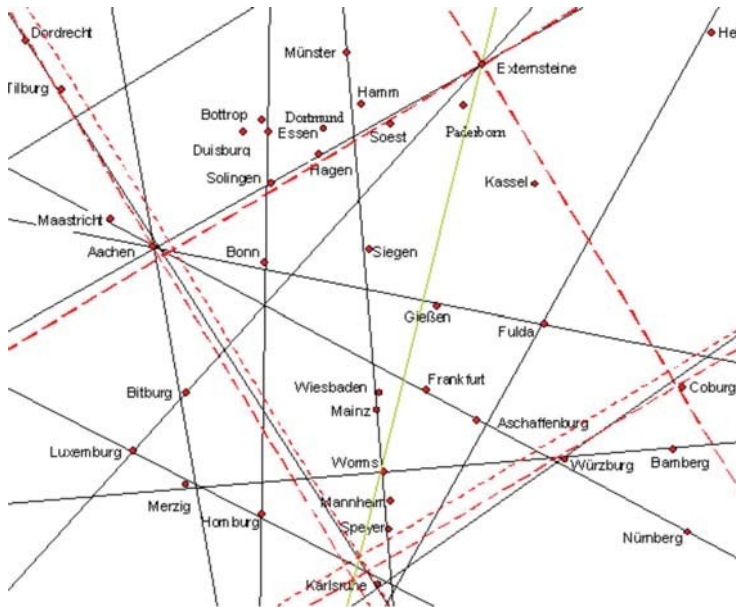
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The Externstein System 1

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Derivation of the Externstein system

The Externsteine are taken as the zero point of a coordinate system and the eastern line of the Externstein pyramid as one coordinate. Looking at the situation in Germany, it is striking that the **Externsteine**, **Aachen**, **Karlsruhe** and **Coburg** form a roughly equilateral triangle.



The distances between the Externsteine and Aachen and between the Externsteine and Coburg are then equal. The underlying distance is therefore now used to generate an entire grid system.

The grid can be refined by halving the squares that have been created. This results in the following image: the red grid is the Externstein system with a quarter division. The green grid is the diagonal system to the Externstein system.

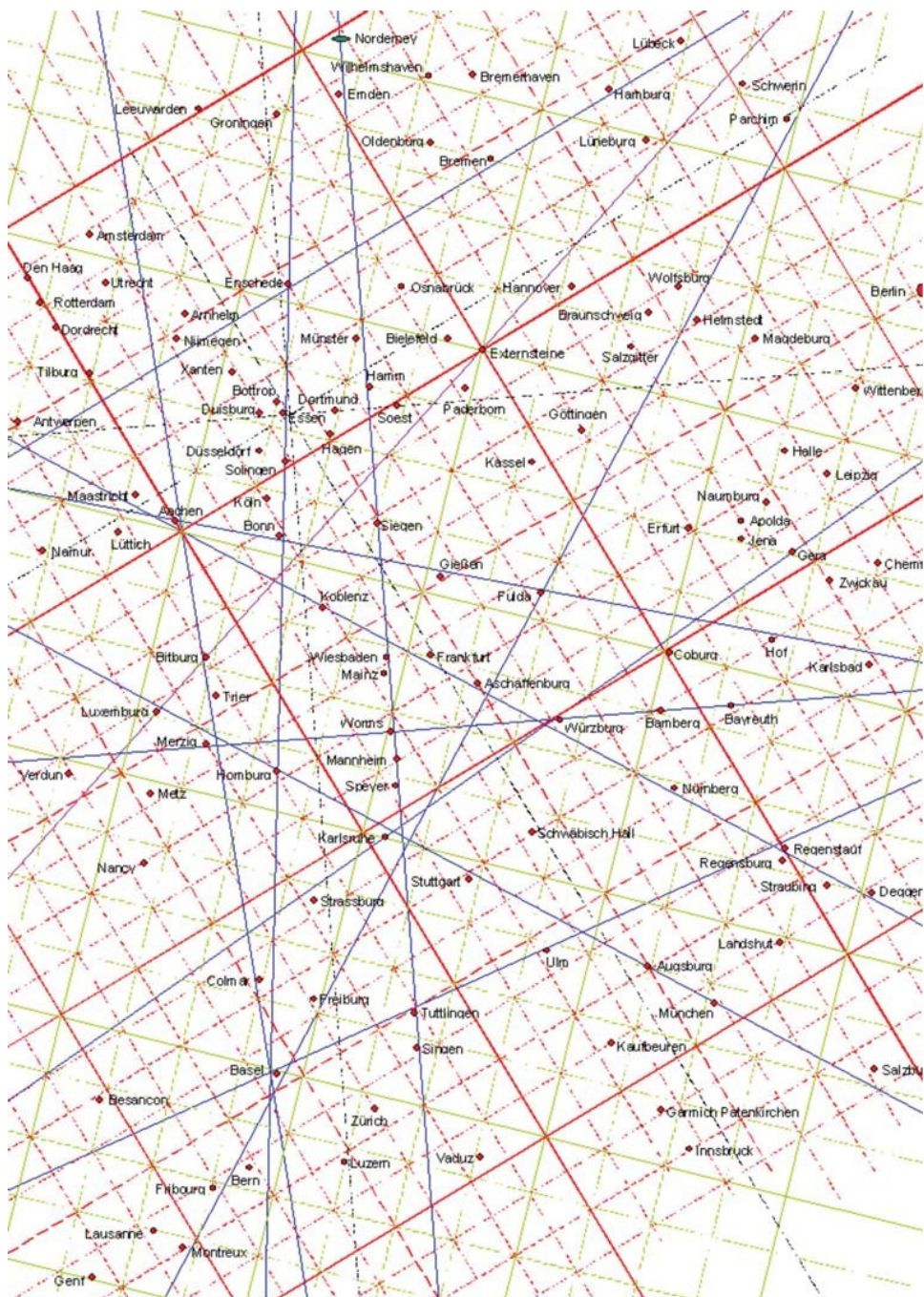


It is striking that some of Möller's lines fit directly (blue) into the grid and can be generated by corresponding ratios of the grid spacing:

the Three Emperors Cathedral line (1:2), the Germany line (5:7), the Norns line (3:5), the Basel-Aachen line (2:5).

If you refine the grid you have found twice more, i.e. to an eighth division, then all of Möller's Ls (blue) shown in the following image can be inserted into the grid system (red).

The green grid is the diagonal system to the Externstein system.



All of Möller's lines (blue) fit directly into the Externsteine grid and can be generated by corresponding ratios of the grid spacing: The Externstein pyramid east line, the lodge line, the Atlantis line and the Enschede-Lübeck line can be directly replaced by lines from the grid system.

The Three Emperors Line has a ratio of 1:2 and the Siegfried Line, perpendicular to it, has a ratio of 2:1. The Norns Line has a ratio of 3:5.

The Germany line can be represented with a 5:7 ratio. But also with a 5:3 ratio – then it is perpendicular to the Nomen line.

The Bonifacius line has a ratio of 10:9. The Basel-Aachen line has a ratio of 2:5. The Basel-Enschede line has a ratio of 7:11.

The Basel-Regenstauf line has a ratio of 8:1.

The Luxembourg-Augsburg line has a 3:5 ratio.

As can be seen in the Externstein system, Jens Möller's lines fit harmoniously into the grid. The Externstein system thus provides the geometric geodetic basis for Jens Möller's lines.

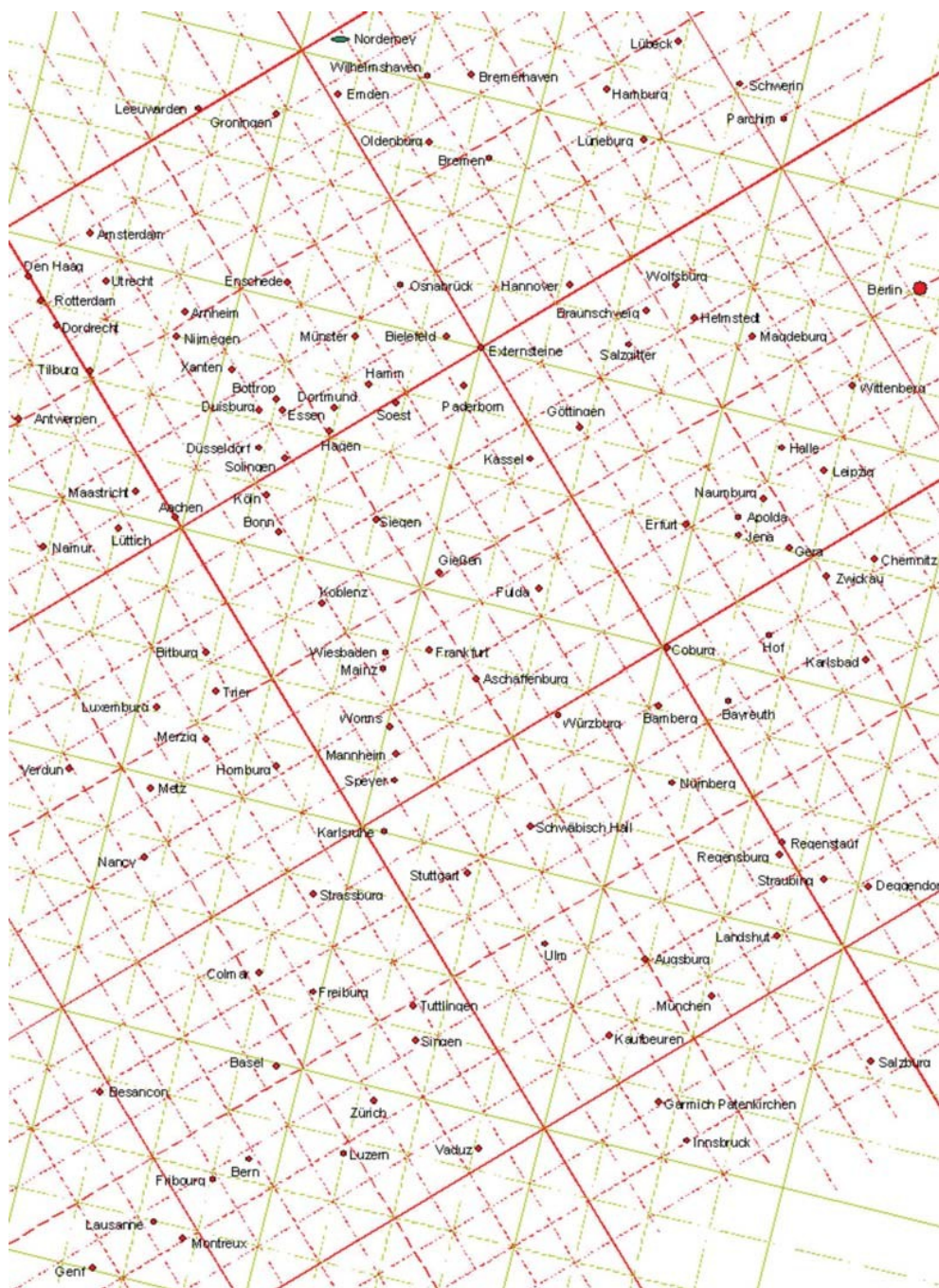
Möller's lines and their embedding in the Externstein system suggest the conclusion that the Externsteine form the geomantic centre of a (quadrification) grid that extends across the whole of Germany and that this grid was used as a base grid in the past.

A study of the Ruhr region demonstrated that the orientation of the eastern line of the Externstein pyramid and the associated grid play a significant role in the landscape structure of the area (see pimath.de Geomancy in the Ruhr region). Furthermore, the location of the Bottrop Town Hall and the Kaiser Wilhelm Memorial in Bottrop and Essen showed that the Externstein orientation was still known and used in the German Empire and the Third Reich.

Since a larger geometry exists, it is to be expected that it also exists on a smaller, i.e. regional, scale. Or conversely: the old local or regional structures can be understood as reflections of higher-level geomantic networks or grids.

The Externstein System 1

The next image shows the Externstein System 1 with an eighth division in red. The corresponding diagonal system is also marked.



The Externstein System

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The beginnings of geomantic research

There are currently three schools of thought regarding the origins of European geomancy. On the one hand, geomancy is seen as an import that came to Europe from Arab countries around the time of Charlemagne. On the other hand, geomancy is explained as a product of the cultures based in Europe, i.e. the Celts and Germanic peoples. And then there is the view that there was an even earlier primordial culture (Atlantis?) and that geomancy represents a preserved legacy of this civilisation. The origins of geomancy in Europe remain shrouded in mystery.

However, research into geomancy in Europe is limited. The English missionary E.J. Eitel was virtually the first European to study the Chinese variant of geomancy, feng shui. His work on feng shui was published in 1873. The term "geomancy" was then also taken up by other writers of his time to translate "feng shui".

Thanks to Alfred Watkins' research on the so-called "ley lines" in England at the beginning of the 20th century, geomancy became a subject of research once again. Since then, there has been continuous research activity in Anglo-Saxon countries. This research is still being continued today by Nigel Pennick, John Michell, Paul Devereux and others. In France, there are geomantically oriented people such as Boudaille, Circare, Doumayrou, Guichard and Guingaud.

Iceland is the only country in Europe where geomantic practice has been preserved from ancient times to the present day!

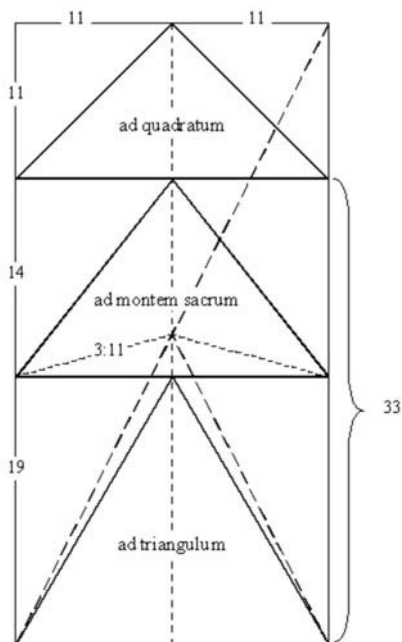
The situation in Germany, on the other hand, is much more complicated.

In the 1930s, geomantic studies were also conducted in Germany. The studies by Wilhelm Teudt, Hermann Wirth and Josef Heinsch came to similar conclusions as Watkins, namely the existence of large-scale landscape structures in Europe.

Heinsch even stated that "the German landscape, in its original sacred spatial order, presents a huge, comprehensively uniform hieroglyph".

In 1937, J. Heinsch described the so-called Mountain of God in his work "Ortung in kultgeometrischer Sinndeutung" (Localisation in Cult Geometric Interpretation) as an expression or counterpart of the world tree Yggdrasil. The Celtic world ash tree was a tree with three trunks or branches, holding the sky with its branches and the earth with its roots.

"Accordingly, it is also a natural expression of this cosmic-sacred image of the heavens that the mountains of God, which appear everywhere as primeval centres for cultic and ethnic community life, can still be found regularly in all German regions today and that, moreover, the surrounding landscape within their boundaries, with all its significant locations, can be uniformly located according to the same units of measurement and proportions in terms of directional relationships."



The illustration shows Lower Saxony's cosmic measurement key and is part of a study by Dr Joseph Heinsch.

Taken from "Prehistoric spatial planning as an expression of a magical world view". The book was not published until 1959. The squaring of the circle and the associated numerical ratios (14:11) play a certain role in it.

Wilhelm Teudt came to the conclusion that sacred places are connected by a network of straight lines. His book "Germanic Sanctuaries" had almost cult status among the Nazis. Himmler promoted Teudt to director of a programme that sought to revive the Externsteine as a sacred monument.

Under his leadership, a replica of the Irminsul was to be erected at the highest point of the Externsteine. Teudt even believed that the original Irminsul, the one destroyed by Charlemagne, had once stood at the Externsteine.



The Externsteine

The Third Reich

From an esoteric (holistic) point of view, living beings and their environment form a unity. Therefore, shaping the landscape can always be understood as shaping the beings that live in it.

From a geomantic perspective, expansive landscape structures (provided with sufficient energy sources) interspersed with architectural constructions arranged according to specific patterns (to channel the energies) also have an effect on the beings living within them, regardless of their nature.

According to Jens M. Möller, "geomancy is the ancient art of identifying energy centres on the Earth's surface and strengthening or altering them by artificially changing the landscape, building shrines and structures. With the help of geomancy, man-made settlements were to be brought into harmony with the energy flows of the Earth and the cosmos."

Understood in this way, geomancy becomes an instrument that (from a certain point of view) has the power to create and shape cultures. It is therefore not surprising that the royal art was treated more as the art of kings. In other words, the art of the initiated and the powerful.

And it was precisely this aspect of power that was a major driving force behind the curiosity of the highest Nazi circles. The innermost circles of the Third Reich, led by Heinrich Himmler, developed an astonishing interest in geomancy.

Consequently, they attempted to put their acquired knowledge into practice, i.e. to shape culture. This is evidenced not only by Wewelsburg Castle near Paderborn, the former Nazi party rally grounds in Nuremberg, and the plans for Berlin.

According to Nigel Pennick's book *Hitler's Secret Sciences*, around 1934 Himmler assumed that a geomantically central location would enable him and his Black Order to psychically influence the whole of Germany. Geomancers in the Ahnenerbe selected an old fortress in Westphalia for this location – Wewelsburg Castle. This example illustrates that all major architectural and landscape projects undertaken by the Nazis were also geomantic projects.

E. Carmin shows the far-reaching nature of the National Socialist geomantic plans in his work in the chapter "Die Planlandschaften der Zukunft" (The Planned Landscapes of the Future). As early as around 1930, comprehensive plans for landscape design existed within certain National Socialist leadership circles. Carmin reports on a Professor Grünberg who worked in the planning office of the Königsberg Gauleiter Koch. There it says (quote from Rauschnigg):

"He had maps drawn up in his institute showing transport routes, power fields, power lines, motorways, railway lines and canal projects.

Precisely planned economic landscapes stretched across the entire East to the Black Sea and the Caucasus. On these plans, Germany and Western Russia were already a huge economic and transport policy unit. Naturally, it was oriented towards Germany, planned and led by Germany. In this planned economy, there was no longer a Poland, let alone a Lithuania. This was the connecting link of a huge continental space that was to stretch from Vlissingen to Vladivostok in the Far East."

The Nazis' interest in geomancy also had other fatal consequences. In order to preserve their secrets, the Nazis destroyed numerous irreplaceable documents at the end of the war.

After the war, both American and British special forces (who were well aware of the Reich government's interest, as they worked according to similar criteria) confiscated the remaining material and transported it away.

In addition to the destruction of many archives by bombing during the war years, this is the main reason why many cities in Germany have no or only incomplete records of architectural and landscape structures from the last 100 years. This is despite the fact that there was extremely lively construction activity during this period.

The political involvement of Wilhelm Teudt and other geomancers during the Nazi era, their integration into the Nazi structure, especially into the so-called "Ahnenerbe" (Ancestral Heritage), brought geomancy into disrepute in post-war Germany.

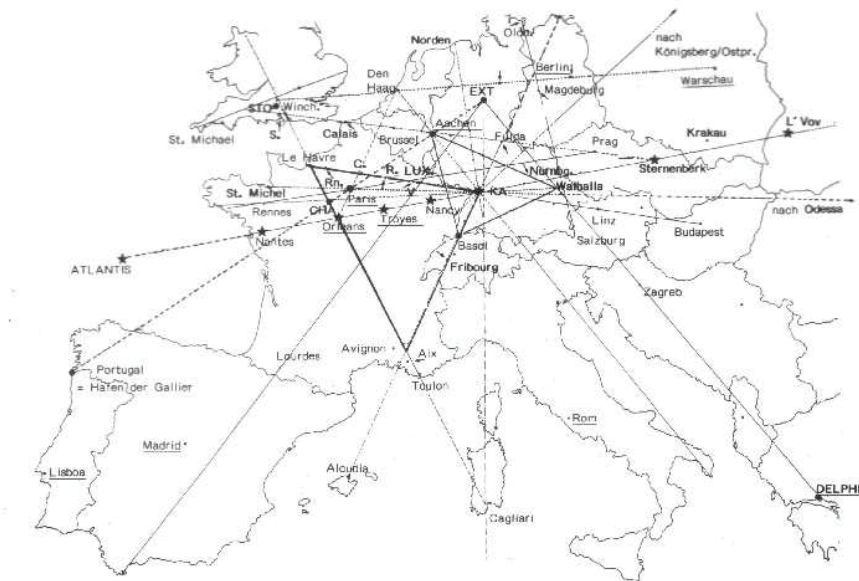
Consequently, in the wake of denazification after the Second World War, all research in the field of geomancy came to an abrupt end in Germany.

A new beginning

It was only with the emergence of the New Age and esotericism wave in recent years that the subject of geomancy returned to Germany. Many people have encountered the terms energy lines, places of power or feng shui before, and they generate a certain amount of interest.

A scientifically credible study was not published until 1988, when Jens M. Möller's book "Geomancy in Central Europe" appeared. The light measurement system published in it offers an approach to a geometric justification of geomancy, even if this is not always recognised.

The use and inclusion of mountains and/or towers in connection with light and mirror systems or their alignment with astronomical events (sun or moon) allows for a geophysical derivation and also the determination of lines on the Earth's surface.



Furthermore, Jens Möller shows in his work that some of these lines, together with certain locations in southern Germany – mainly around Karlsruhe – create an extremely complex geometry that includes shapes such as 5- or 6-corners, as well as so-called **Cheops pyramids and quadrature triangles**.