Compass

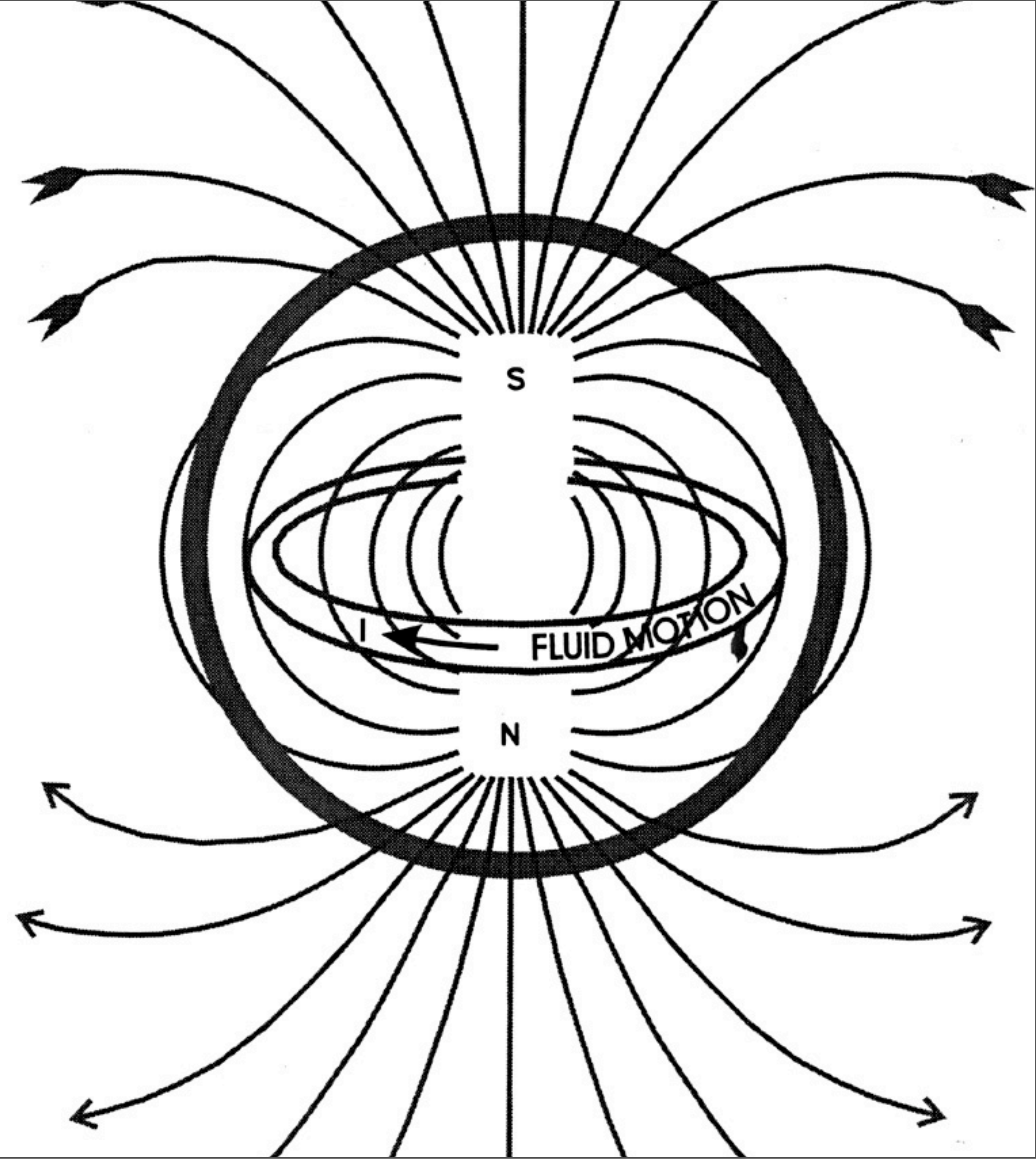
The compass functions as an indicator to "magnetic north" because the magnetic bar at the heart of the compass aligns itself to one of the lines of the Earth's magnetic field. Depending on where the compass is situated on the surface of the Earth the variance between geographic north or "true north" will increase the farther one is from the prime meridian of the Earth's magnetic field. The geographic North Pole and the magnetic north pole are not coincident on the surface of the Earth. The Magnetic North Pole drifts in a circle with a radius of approximately 1600 km south of geographic north. It takes roughly 960 years for the magnetic pole to complete one cycle of drift across the Arctic Ocean. It is thought that the cause of this magnetic pole drift is the circulation of the magma inside the Earth.

Limitations of the compass

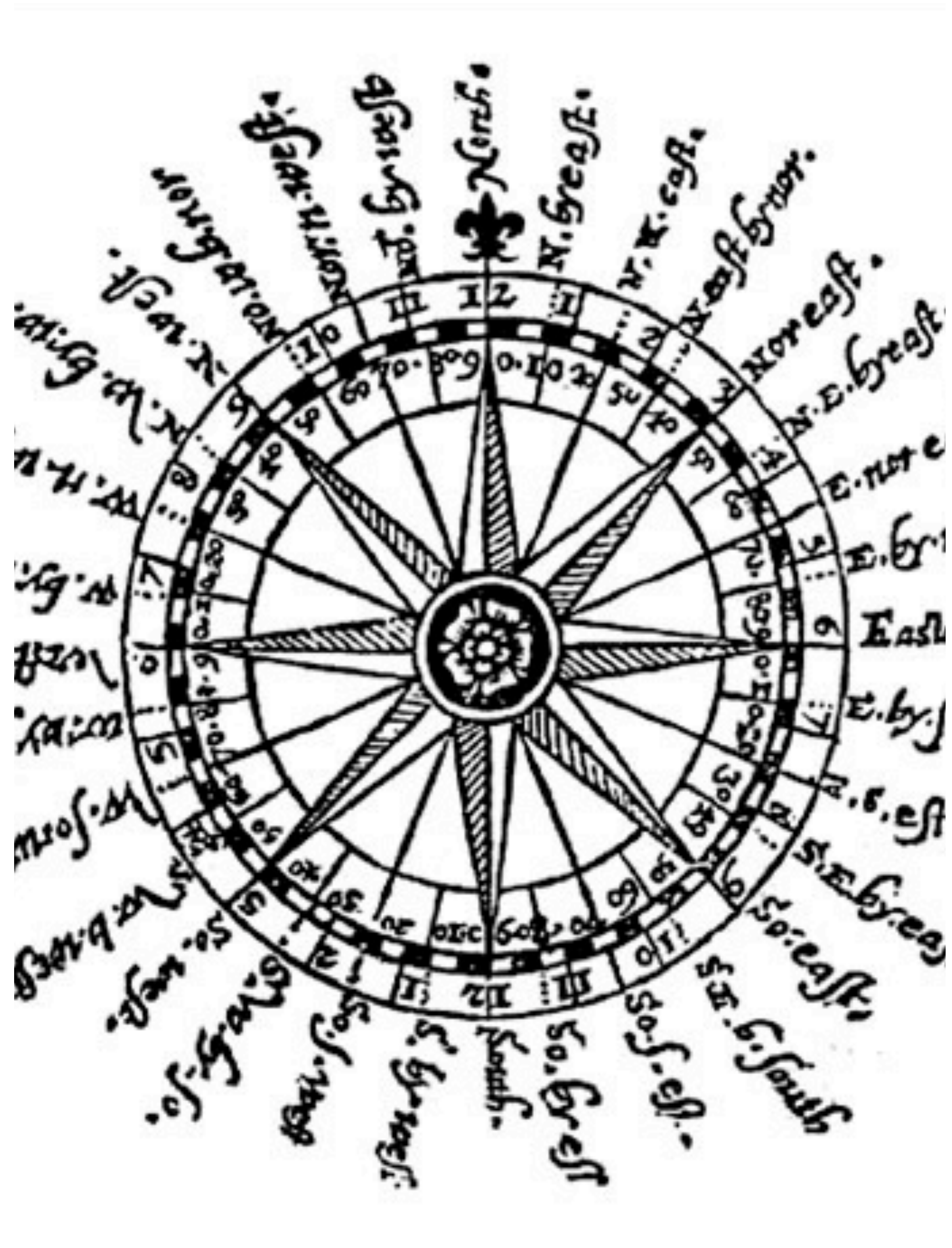
The compass is very stable in areas close to the equator, which is far from "magnetic north". As the compass is moved closer and closer to one of the magnetic poles of the Earth, the compass becomes more sensitive to crossing its magnetic field lines. At some point close to the magnetic pole the compass will not indicate any particular direction but will begin to drift. Cheap compasses with bad bearings may get stuck therefore indicate a wrong direction.

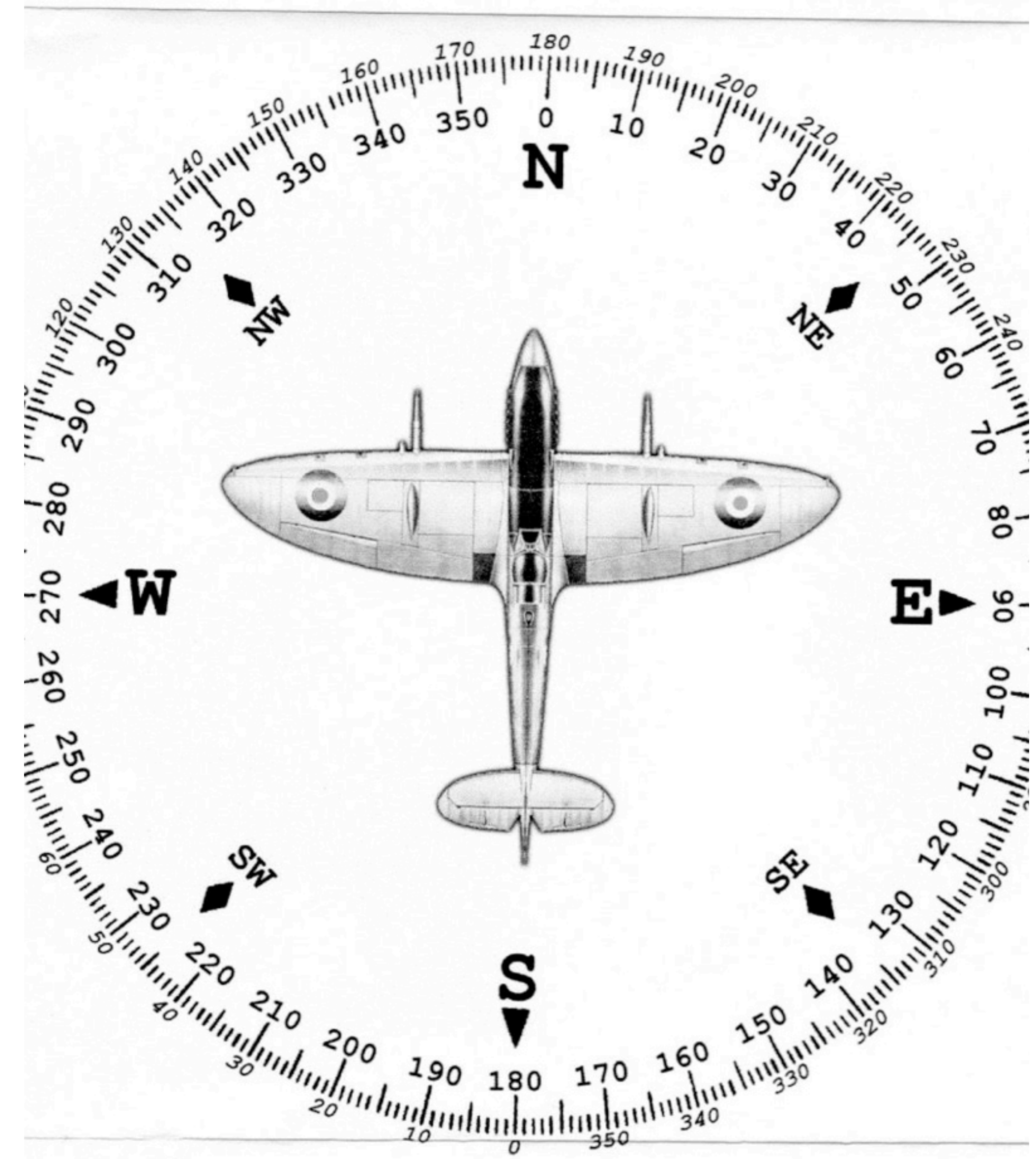
Bear Grylls & his Compass

The Earth’s Changing Magnetic Field



Points of the Compass



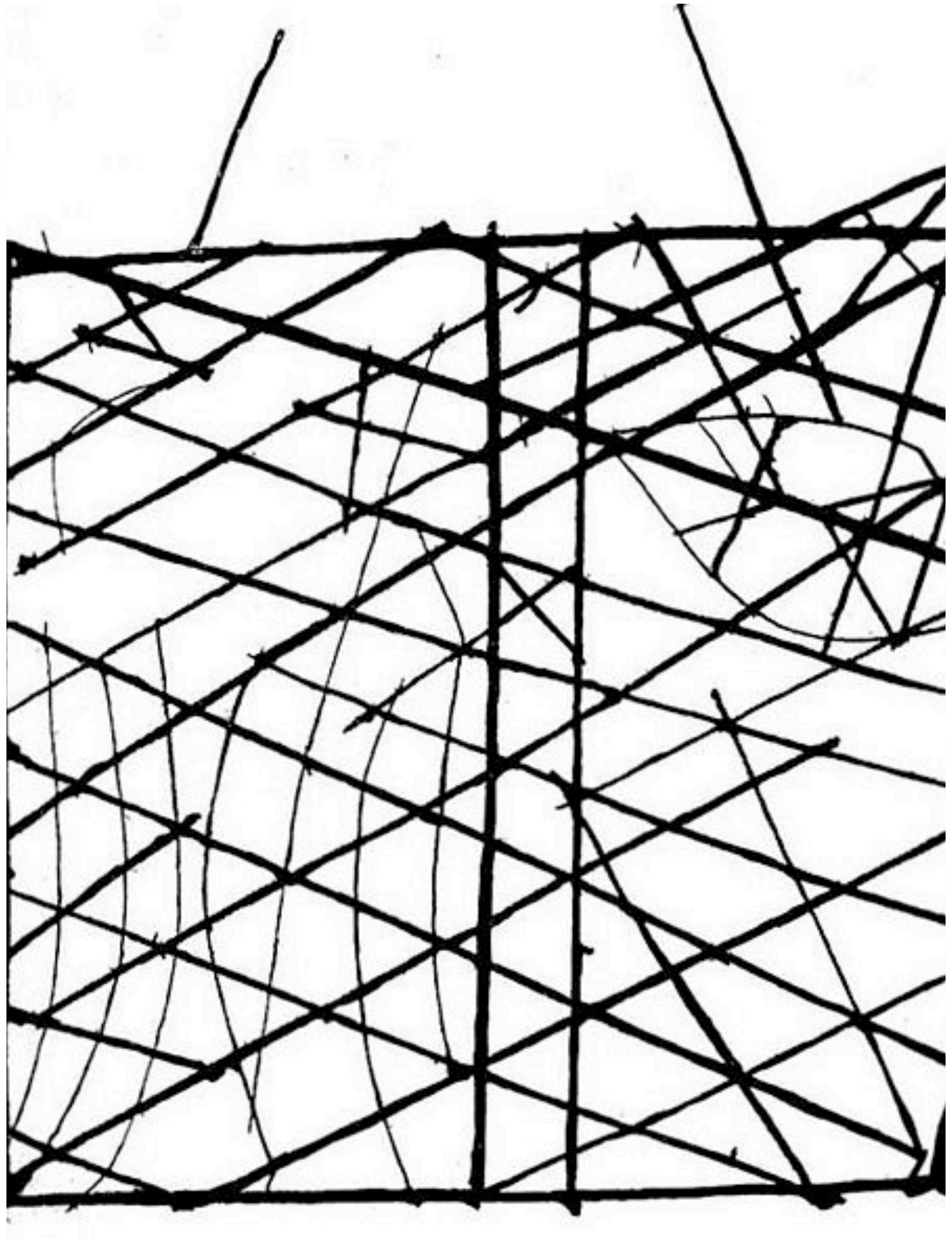


Originally, many compasses were marked only as to the direction of magnetic north, or to the four cardinal points - north, south, east, west. Later, these were divided, in China into 24, and in Europe into 32 equally spaced points around the compass card.

In the modern era, the 360-degree system took hold. This system is still in use today for civilian navigators. The degree system spaces 360 equidistant points located clockwise around the compass dial. In the 19th century some European nations adopted the "grad" (also called grade or gon) system instead, where a right angle is 100 grads to give a circle of 400 grads. Dividing grads into tenths to give a circle of 4000 decigrades has also been used in armies.

Most military forces have adopted the French "millieme" system. This is an approximation of a milli-radian (6283 per circle), in which the compass dial is spaced into 6400 units (Sweden uses 6300) or "mils" for additional precision when measuring angles, laying artillery, etc. The value to the military is that one angular mil subtends approximately one metre at a distance of one kilometer. Imperial Russia used a system derived by dividing the circumference of a circle into chords of the same length as the radius. Each of these was divided into 100 spaces, giving a circle of 600. The Soviet Union divided these into tenths to give a circle of 6000 units, usually translated as "mils". This system was adopted by the former Warsaw Pact countries (Soviet Union, GDR etc.), often counterclockwise (see picture of wrist compass). This is still in use in Russia.

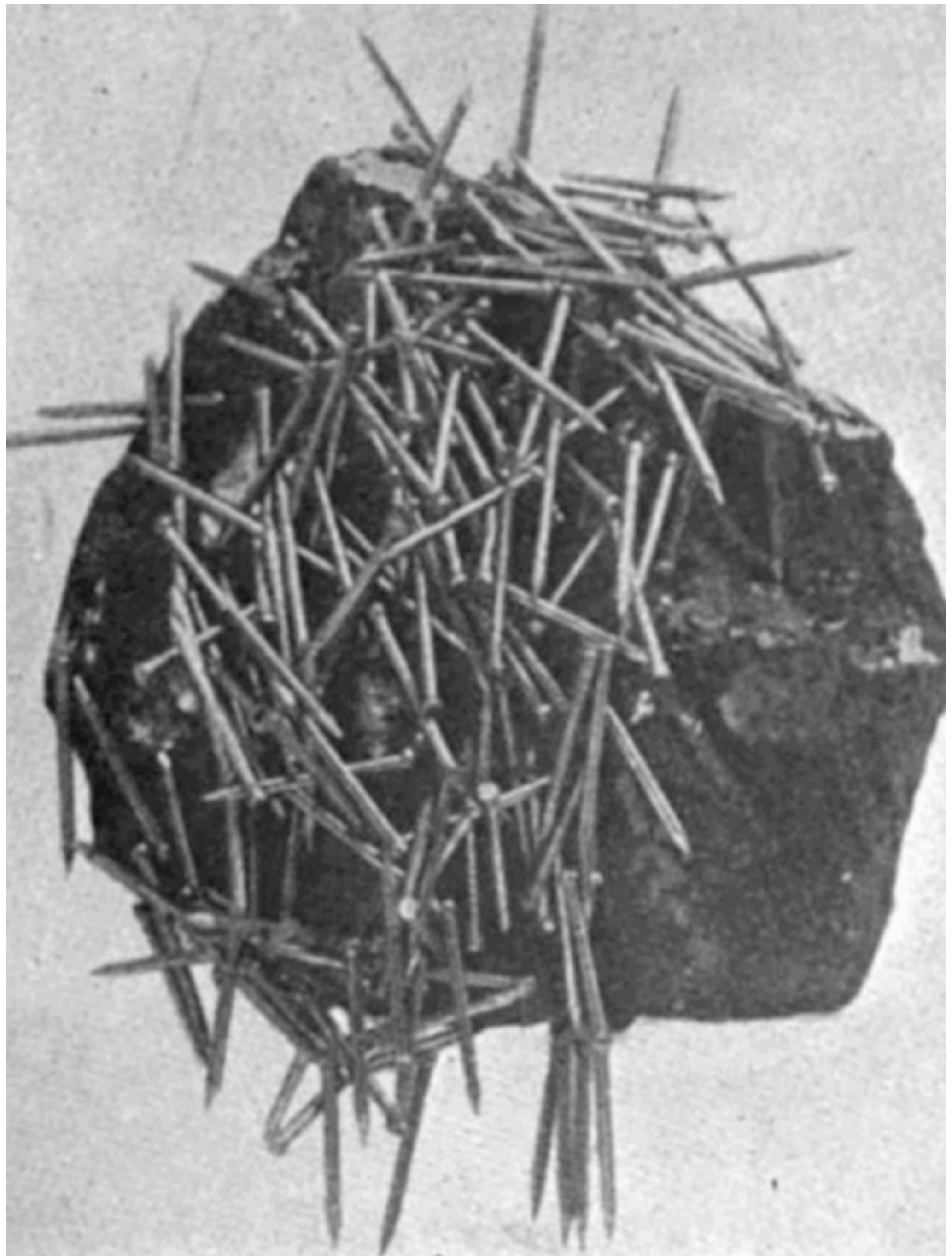
History

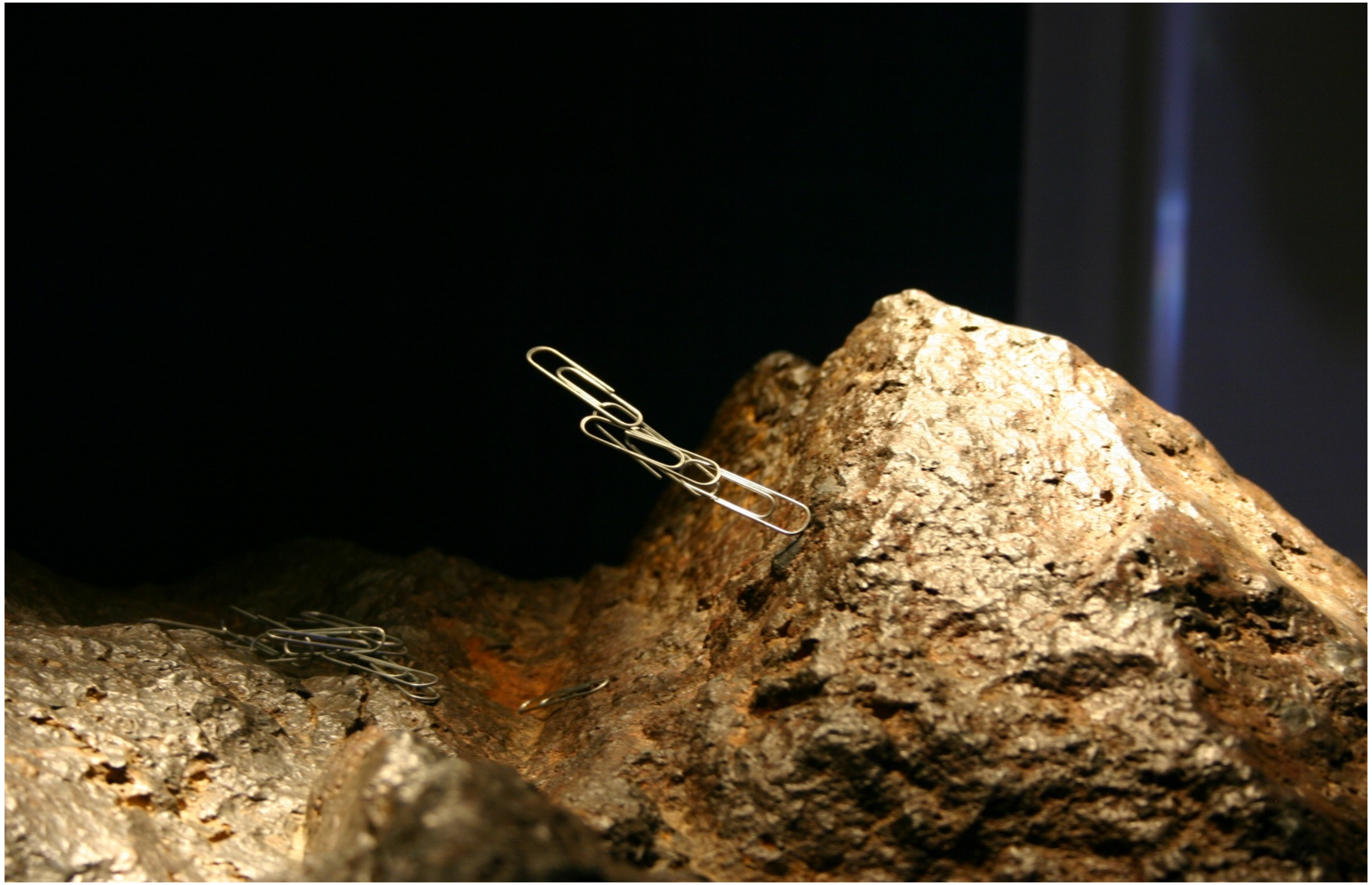


Polynesian navigation record of islands and tides with sticks and string.

The Hōkūleʻa replica of a polynesian double hulled voyaging canoe. She was was built to sail among the Pacific Islands in the 1970's. Hōkūleʻa was sailed using ancient Polynesian navigation and sailing techniques - Wayfinding - in order to reintroduce Hawaiians and other pacific islanders to long forgotten traditions.

Interactive Hokule'a





A lodestone or loadstone is a naturally magnetized piece of the mineral magnetite. They are naturally occurring magnets, that attract pieces of iron. Pieces of lodestone, suspended so they could turn, were the first magnetic compasses,and their importance to early navigation is indicated by the name lodestone, which in Middle English means 'course stone' or 'leading stone'.

Olmec Geomantic Orientation

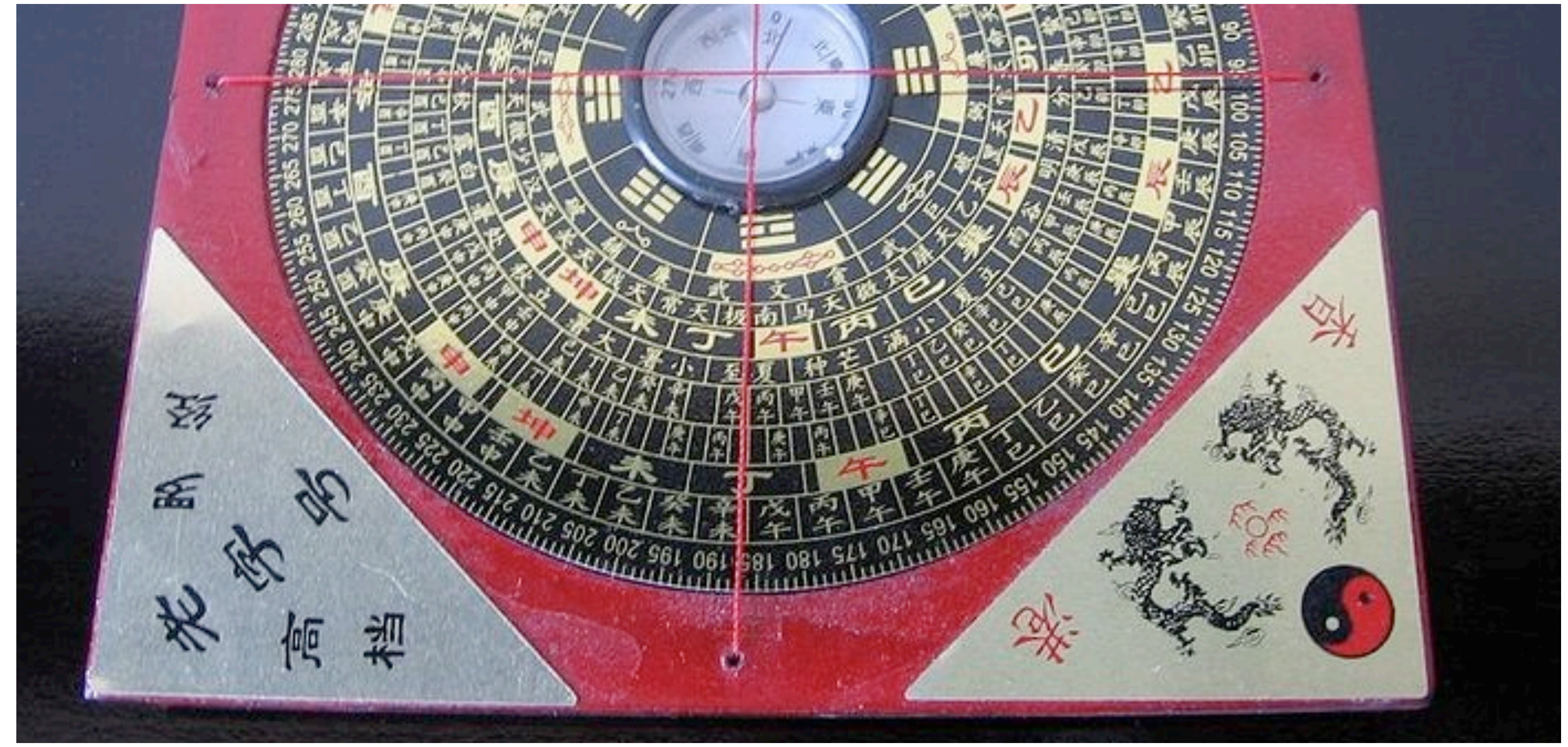
The Olmec might have discovered and used the geomagnetic lodestone compass earlier than 1000 BC

The artifact now consistently points 35.5 degrees west of north, but may have pointed north-south when whole.

The earliest Chinese compasses were probably not designed for navigation, but rather to order and harmonize their environments and buildings in accordance with the geomantic principles of feng shui. These early compasses were made using lodestone, a special form of the mineral magnetite that aligns itself with the Earth's magnetic field.

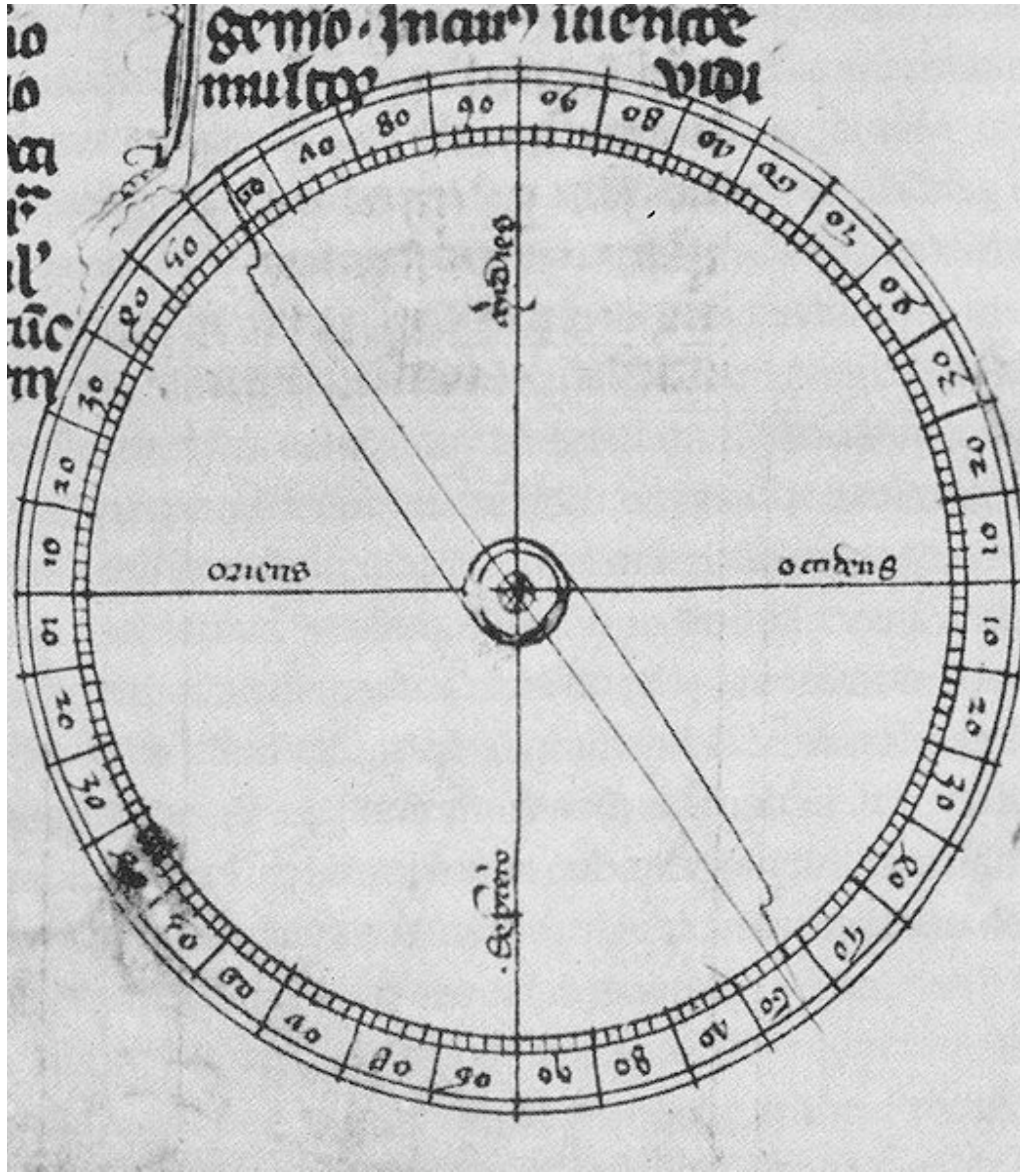
The earliest recorded actual use of a magnetized needle for navigational purposes is found in Zhu Yu's book Pingzhou Table Talks (萍洲可談; Pingzhou Ketan) of 1119 (written from 1111 to 1117): "The navigator knows the geography, he watches the stars at night, watches the sun at day; when it is dark and cloudy, he watches the compass."

Chinese Compass Explanation



Modern Chinese Compasses | Depending on the particular style of feng shui being used, an auspicious site could be determined by reference to local features such as bodies of water, stars, or a compass. In Liqi Pai compasses are used.

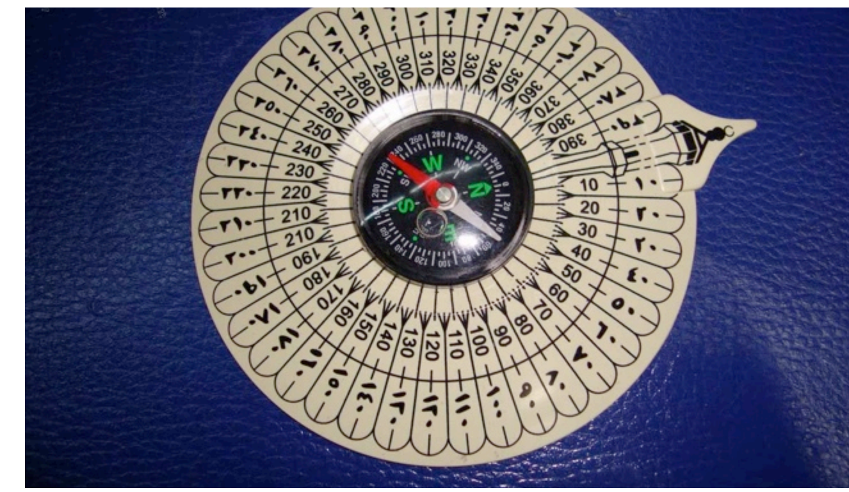
Europe

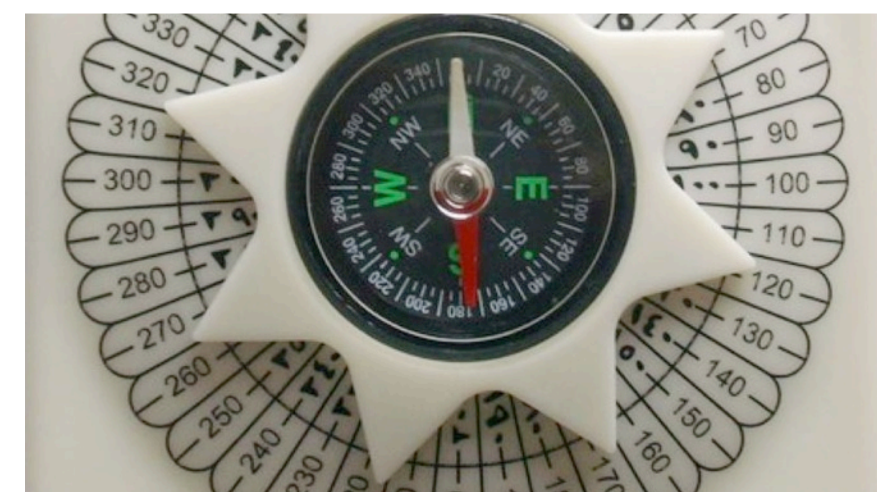


In 1187 Alexander Neckam reported the use of a magnetic compass for the region of the English Channel. In 1269 Petrus Peregrinus of Maricourt described a floating compass for astronomical purposes as well as a dry compass for seafaring, in his well-known Epistola de magnete. In the Mediterranean, the introduction of the compass, at first only known as a magnetized pointer floating in a bowl of water, went hand in hand with improvements in dead reckoning methods, and the development of Portolan charts, leading to more navigation during winter months in the second half of the 13th century.

Evidence for the orientation of buildings by the means of a magnetic compass can be found in 12th century Denmark: one fourth of its 570 Romanesque churches are rotated by 5-15 degrees clockwise from true east-west, thus corresponding to the predominant magnetic declination of the time of their construction. Most of these churches were built in the 12th century, indicating a fairly common usage of magnetic compasses in Europe by then.

Qibla Indicators





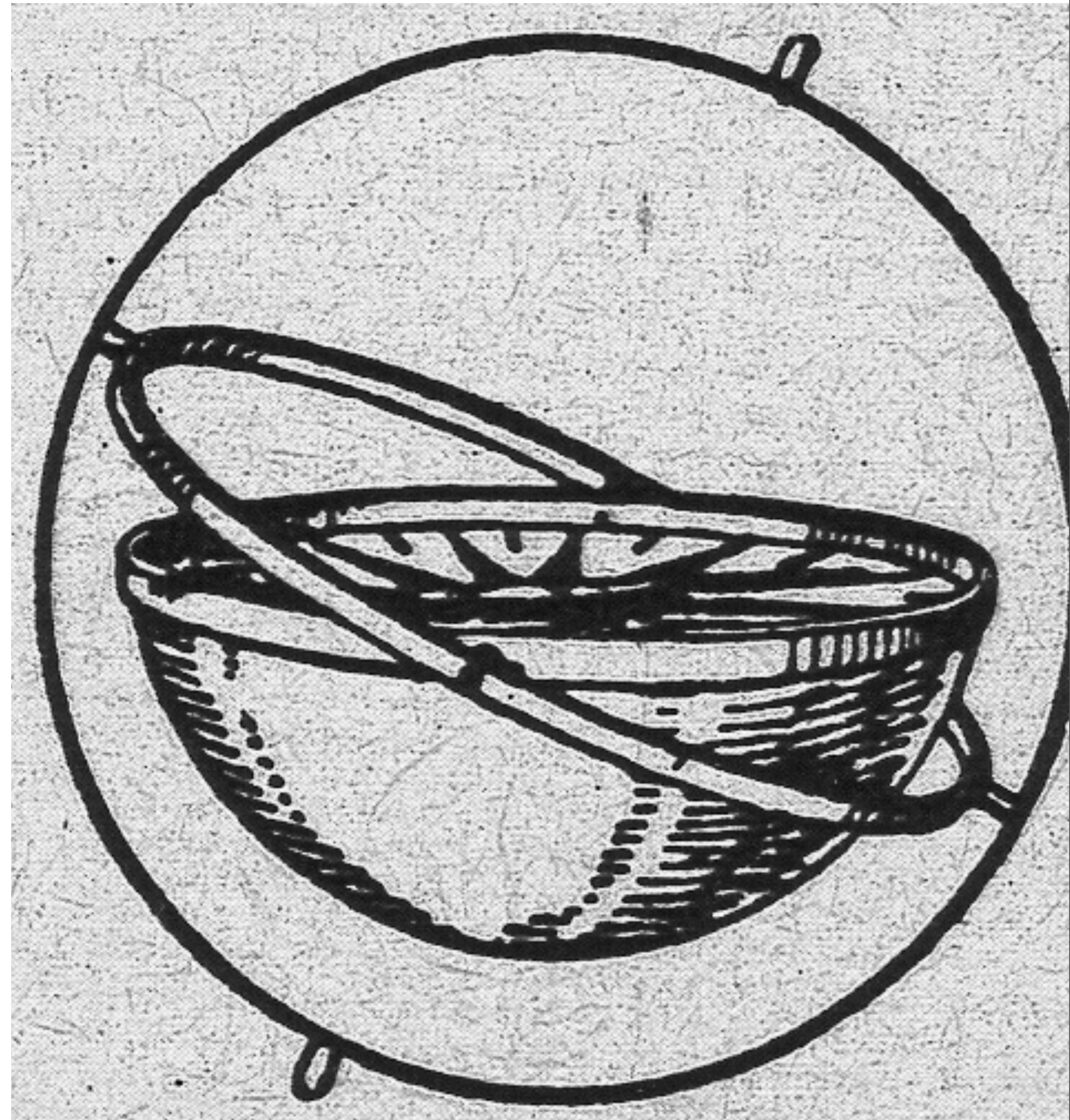
The earliest reference to an iron fish-like compass in the Islamic world occurs in a Persian talebook from 1232. The earliest Arabic reference to a compass - in the form of magnetic needle in a bowl of water - comes from the Yemeni sultan and astronomer Al-Ashraf in 1282. He also appears to be the first to make use of the compass for astronomical purposes.

Three astronomical compasses meant for establishing the meridian were described by Peter Peregrinus in 1269 (referring to experiments made before 1248) In 1300, an Arabic treatise written by the Egyptian astronomer and muezzin Ibn Simʿūn describes a dry compass for use as a "Qibla indicator" to find the direction to Mecca. In the 14th century, the Syrian astronomer and timekeeper Ibn al-Shatir (1304–1375) invented a timekeeping device incorporating both a universal sundial and a magnetic compass. He invented it for the purpose of finding the times of Salah prayers. Arab navigators also introduced the 32-point compass rose during this time.

Types of Compasses

Dry Compass

The dry mariner's compass was invented in Europe around 1300. This compass consists of three elements: A freely pivoting needle on a pin enclosed in a little box with a glass cover and a wind rose, whereby "the wind rose or compass card is attached to a magnetized needle in such a manner that when placed on a pivot in a box fastened in line with the keel of the ship the card would turn as the ship changed direction, indicating always what course the ship was on". Compasses were often fitted into a gimbal mounting to reduce grounding of the needle or card when used on the pitching and rolling deck of a ship.



Bearing Compass

A bearing compass is a magnetic compass mounted in such a way that it allows the taking of bearings of objects by aligning them with the lubber line of the bearing compass.

The bearing compass was steadily reduced in size and weight to increase portability, resulting in a model that could be carried and operated in one hand. In 1885, a patent was granted for a hand compass fitted with a viewing prism and lens that enabled the user to accurately sight the heading of geographical landmarks, thus creating the prismatic compass. Another sighting method was by means of a reflective mirror. First patented in 1902, the Bézard compass consisted of a field compass with a mirror mounted above it. This arrangement enabled the user to align the compass with an objective while simultaneously viewing its bearing in the mirror.

In 1928, Gunnar Tillander, a Swedish unemployed instrument maker and avid participant in the sport of orienteering, invented a new style of bearing compass. Dissatisfied with existing field compasses, which required a separate protractor in order to take bearings from a map, Tillander decided to incorporate both instruments into a single instrument. His design featured a metal compass capsule containing a magnetic needle with orienting marks in its base, fitted into a baseplate marked with a lubber line (later called a direction of travel indicator). By rotating the capsule to align the needle with the orienting marks, the course bearing could be read at the lubber line. Moreover, by aligning the baseplate with a course drawn on a map - ignoring the needle - the compass could also function as a protractor. Tillander took his design to fellow orienteers Björn and Alvar Kjellström, who were selling basic compasses, and the three modified Tillander's design. In December 1932, the Silva Company was formed, and the three men began manufacturing and selling their Silva compass to Swedish orienteers, outdoorsmen, and army officers.

Tillander Compass

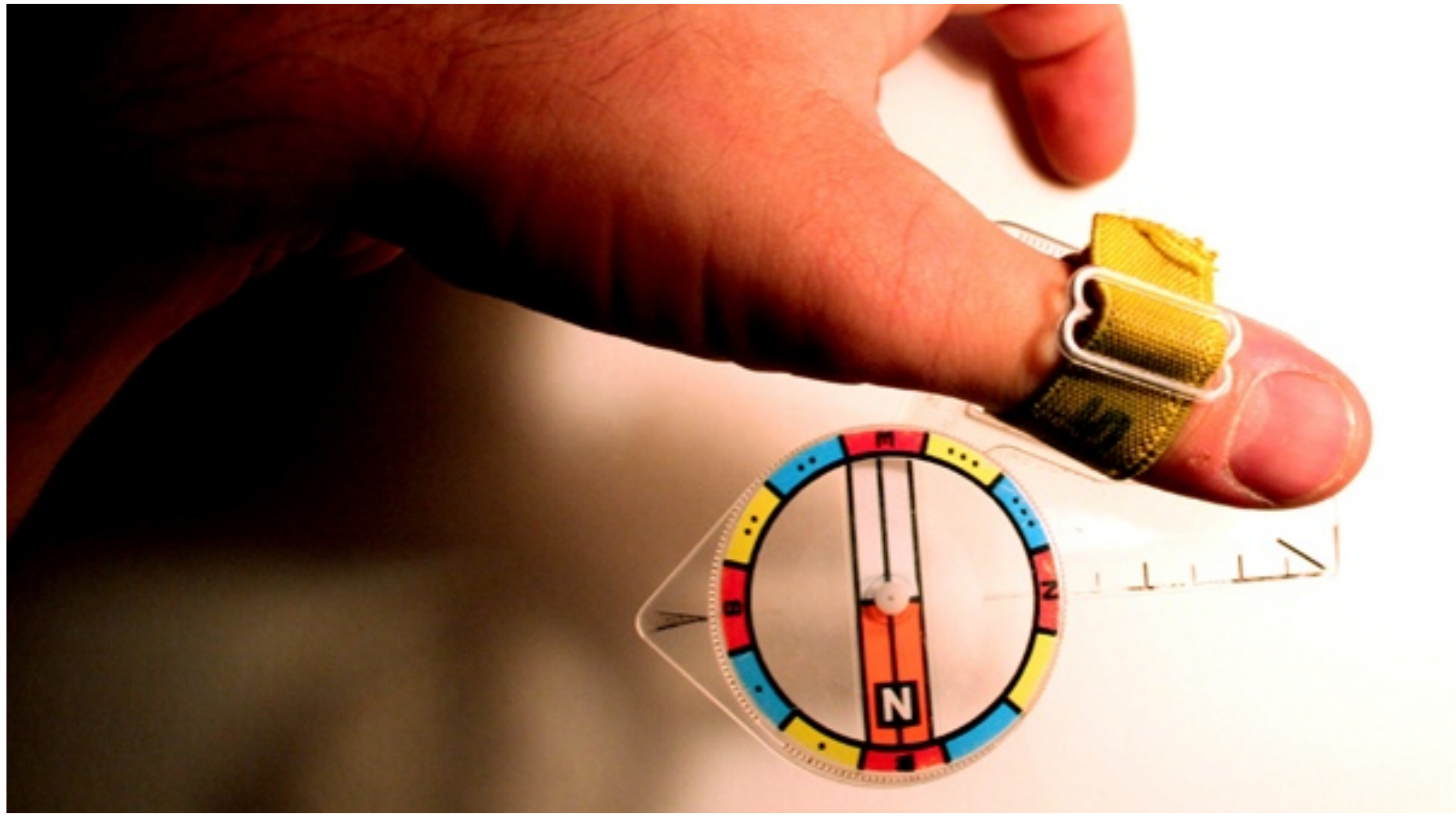
Modern Silva Compass

Liquid Compass

The liquid compass is a design in which the magnetized needle or card is damped by fluid to protect against excessive swing or wobble, improving readability while reducing wear. A rudimentary working model of a liquid compass was introduced by Sir Edmund Halley at a meeting of the Royal Society in 1690.

Liquid compasses were next adapted for aircraft. In 1909, Captain F.O. Creagh-Osborne, Superintendent of Compasses at the British Admiralty, introduced his Creagh-Osborne aircraft compass, which used a mixture of alcohol and distilled water to damp the compass card. After the success of this invention, Capt. Creagh-Osborne adapted his design to a much smaller pocket model for individual use by officers of artillery or infantry, receiving a patent in 1915.

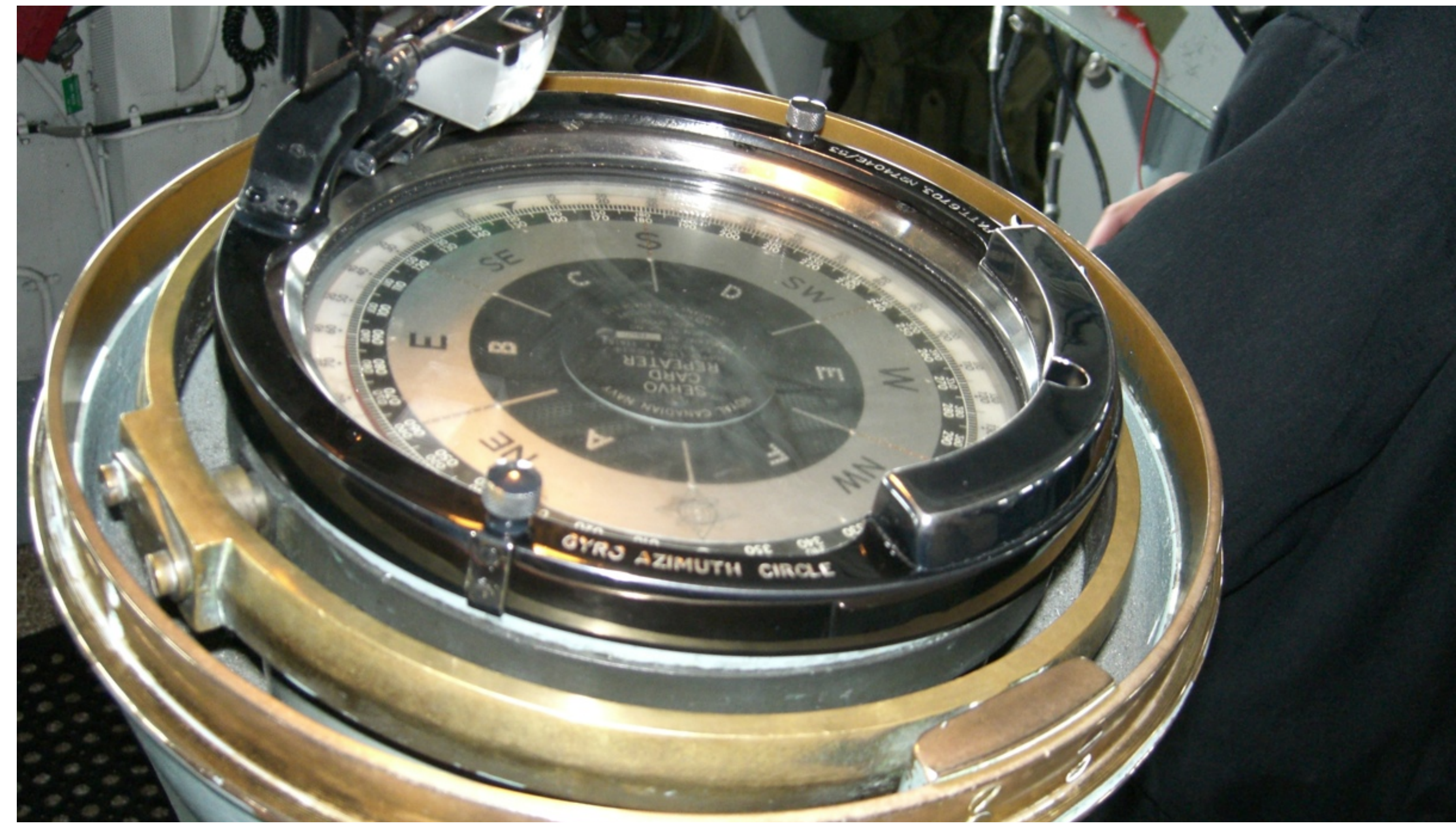
In 1933 Tuomas Vohlonen, a surveyor by profession, applied for a patent for a unique method of filling and sealing a lightweight celluloid compass housing or capsule with a petroleum distillate to dampen the needle and protect it from shock and wear caused by excessive motion. Introduced in a wrist-mount model in 1936 as the Suunto Oy Model M-311, the new capsule design led directly to the lightweight liquid field compasses of today.



Thumb Orienteering Compass

Liquid Lensatic Compass

Solid State Compass (mobile phones, gps, computers, etc.)



Gyrocompass

Wrist Compasses

Manufacturer not identified - Probably one of the very first wrist compasses ever made (late 19th C. ?).

The compass card's design is identical with typical ships' compasses. The compass card features 64 divisions, a number also used on military compasses to assess distances (see MISCELLANEOUS / Divisions).

Technical Data
- Diameter: 41 mm
- Depth: 12 mm
- Weight: 30 gr
- Divisions: 64 rumbs, main and semi cardinals abbreviated, North: fleur-de-lis (heraldic lily).
- Sighting system: rifle type
- Transit lock: side (screw head)

ASKANIA is a German manufacturer.

This compass is the East-German post WWII version of the Soviet-Union made ZUP and AURKKA (see below) compasses. This one was built in the early '50s by VEB ASKANIA (East-Berlin). The 360 deg. division shows that it is a civilian version.
See also BAMBERG in the cat. AERONAUTICAL Compasses and ASKANIA in MARCHING compasses.

Technical Data

- Diameter: 53 mm
- Depth: 20 mm
- Weight: 37 gr
- Divisions: 360 degrees clockwise
- Material: Bakelite case, leather strap
- Crown with rifle-type aiming device and screw activated lock

PROFILE - Abbrev. for Bianchetti Electronique Nautique. French manufacturer
BEN Marine is now a division of AMESYS.

BEN built wrist compasses, among others this one resembling the LEMAIRE model used by the French Navy's Special Forces during the 1st Vietnam war (1946-1954) and the Algerian Independance war (1957-1962).
The black-and-white picture shows a French soldier wearing an original compass in Algeria.
This compass combines the characteristic features of the white Czech KADLEC AK39 (sight elements on a crown without divisions, white line on glass) and the lateral screw-operated locking device of the crown like on british compasses (see T.G. Co. Ltd, Barker etc.).

Technical Data
- Diameter x depth: 58 x 20 mm
- Weight: 88 gr
- Divisions: 360 degrees, clockwise

FLUID Bézard wrist compass - Model "Bw"
(Bundeswehr - Armed Forces of Federal Germany)

PROFILE - DINSMORE is a U.S. company located in Flint, Michigan. It was founded in 1927 (tbc) by Clarence B. "Dinny" DINSMORE. His son Robert C. (born Dec. 22, 1919 - died Dec. 15, 2009) continued but sold the rights in 2001 to the 'The Robson Company' (TRC).
Dinsmore was the world's first maker of car compasses and has had approx. eighty years of experience, and many patents for the correction of vehicle caused anomalies in compass readings. Dinsmore has designed and manufactured compasses for special uses as well as aircraft, mariners and vehicular compasses. See also R. C. Dinsmore's obituary.

However, we were told the following story by the current owner of the plant, Mr. Bruce Blevis: "I believe that Dinny worked for Albert Champion, founder of AC Spark Plug and Champion plugs back in the 1920’s. There was a company in the East trying to work their way into the automobile gage business, which Mr. Champion had a corner on the market because the center of automobiles was in the Flint and Detroit areas in the 1920’s. This other company specialized in aircraft gages. So Albert asked Dinny to design a compass that would work in any position. When Dinny brought the compass to Albert, Albert sent it to the competitor and said " if you don’t stop making auto gages I will market this compass which can be used in airplanes". They withdrew from the auto market. Albert having won his battle had no use for the compass so he gave the rights to Dinny, who patented them and started the Dinsmore Instrument Company."

Technical data
• Diameter: 30 mm
• Depth: 11 mm
• Manufactured (approx.): 19..0's

PROFILE: DOXA is (was) a (Swiss?) clock manufacturer. We have seen several different DOXA compasses "made in Japan".
See also Pocket compasses.

FPM Holding - Freiberger Präzisionsmechanik

PROFILE - German

Fluid capsule compass SPORT 11

Technical Data
- Diameter: 55 mm
- Depth: 20 mm
- Weight: 41 gr
- Divisions: 360 degrees by 5, clockwise

PROFILE - John E. Hand & Sons was a U.S. compass manufacturer. Besides ship compasses this company also built wrist compasses for Navy and Airforce soldiers, especially the following wrist compasses developed for the Navy in the 50's and 60's and utilized by the UDT (Underwater Demolition Teams).

THE MUSEUM DISPLAYS PICTURES OF A COMPASS Mk 1 Mod 0 (PRODUCTION YEARS: 1950's) PREVIOUSLY SHOWN ON THE NOW NO LONGER AVAILABLE BILLY SCHORR WEBSITE. This compass type was replaced by Model 1 in which Tritium instead of Radium was used.

Japan

Technical Data
- Diameter: 34 mm
- Depth: 12 mm
- Weight: 25 g
- Divisions: 360 deg. by 5, clockwise
- Needle transit locking: side lever
- Marching direction arrow painted under the crystal (bezel)
- Luminous markings: radium paint

KADLEC - Instrumentenfabrik, Prague

PROFILE: (draft)
Kadlec was a German instruments manufacturer located in Prague (former Czechoslovakia, now Czechia) until the end of WW II.
A manufacturer of marine instruments still exists in Germany today. So far, this company didn't answer our questions concerning its history. We presume that is was re-founded in the West after the communist regime took over the industry's management.
The Czech plant (code lhx) most probably manufactured after WWII the other compass type displayed below.

Model AK 39
There were two versions of the AK 39 compass: a simple black one and a white one. They were utilized by German pilots during WWII. (See picture at right - click to enlarge) This photograph was published by the Reichsluftfahrtministerium and probably used for training purposes. The black model (procurement no. Fl 23235 - see foot note) featured only lubber's line (that used to be luminous). The white model (Fl 23235-1) allowed for setting a course by means of two white rotating semi-circular sheets located at the underside. Moreover, a gun-type sight allowed for taking an aim at a target.

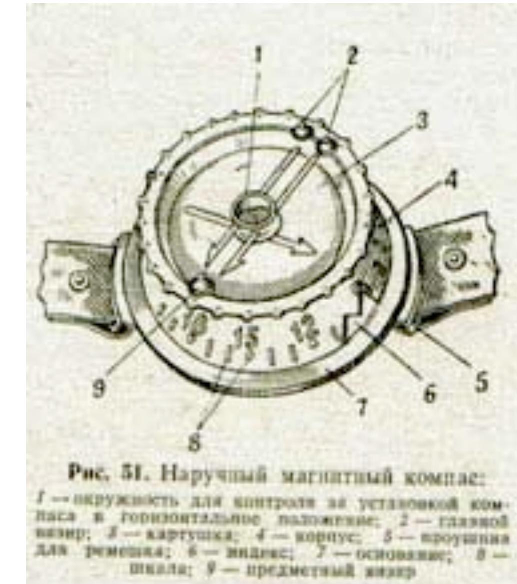
Note: The letters Fl are the abbreviation for Fliegermaterial i.e. aeronautical materiel.

KNM (KHM in cyrillic letters)

PROFILE: (company of the former Soviet Union)
The letters KNM stand for the three Russian words Compass, naruchny, magnetny (wrist magnetic compass)
Magnetic wrist compass for diver
The compass (Fig. 51) is used to work out direction under water. It can also be used on the surface during the day or night

(Following adapted description by courtesy of Kim. See his website Russian Diving.)

Technical Data
- Diameter: base 70 mm, crown rim 55 mm
- Depth: 35 mm
- Weight: 165 gr



PROFILE - MARBLE'S of GLADSTONE (Michigan) is a U.S. company specialized in rifle sights and gear for hikers like pocket knives and compasses

MARBLE'S also produced some compasses. The most famous were pin-on compasses that could be carried attached to one's clothes.
There were at least two different forms (long or short stem) and faces (plain white with needle or black-and-white card).
On MARBLE'S own website, it is said that famous explorers or pioneers like Theodore Roosevelt during a scientific exploration of the Brazilian wilderness in 1913 or Charles Lindbergh on his legendary flight from New York to Paris across the Atlantic Ocean in 1927 carried with them a Marble's compass but we don't know which model is meant. MARBLE'S most probably had a cooperation in the second half of the 20th century with the German manufacturer WILKIE.

We also display here a wrist-top compass made approximately in the 1930's.

WORLD WAR I - Mark VI design

Technical data
- Strap: fabric
- Case: brass blackened
- Outer diameter: 45 mm
- Manufacturer: unknown.

NOTE: This compass design was made by several manufacturers,
among many others DENNISON and TERRASSE in Pocket compasses shape.

Royal Navy divers compass (1960-1970)

Technical data
- Diameter: 62 mm
- Depth: 40 mm
- Weight: 190 gr
- Manufacturer: ?
- Strap: nylon (missing)
- Box: wood, lead lining (2 mm)
- Markings: T = tritium ; P = ?

PROFILE - Guido Panerai & Figlio (GPF) was an Italian watch maker of Florence who has also been manufacturing compasses for the Italian NAVY's swimmers and divers since World War II until the end of the 20th century

Technical Data
- Steel casing: 70 x 90 mm
- Height (total): 34 mm
- Height (Plexiglas dome): 23 mm
- Weight: 300 g

THE FIRST MODEL GPF 4/55
Lubber line under the Plexiglas dome, markings every 22.5 deg. (i.e. 2 compass points). Figures and markings: Radiomir luminous compound.

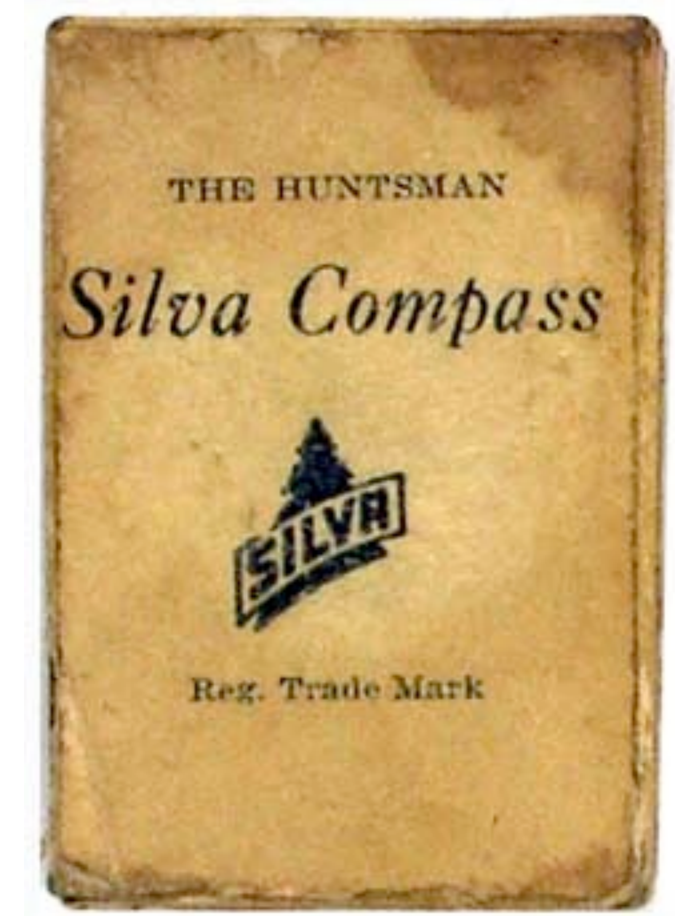
Compass developed for the Royal Italian Navy's special units.
This type of compass had to be held perfectly horizontally to ensure its perfect function.

PROFILE - Swedish manufacturer
Pin-on compass* for hunters. A modern one made of plastic is also used in some countries for jet fighter pilots' first aid kits (see below German Luftwaffe, BUND = Bundeswehr, Federal Army, with NATO Stock Number). This instrument was part of the first aid kit and attached to the inflatable SECUMAR vest.
Model name Globetrotter

Technical data
- Diam.: 2 in (50 mm)
- Inscriptions on the back:

SILVA - A.-B. BROD. KJELLSTROM** - Stockholm Sweden - 68 -
U.S.A. Pat. 2136970.
The object of the patent filed by Henning Rudolf Ekkeberg in 1937 was a fluid capsule capable of resisting variations of the fluid volume due to temperature changes.

**Author of the famous manual "With Map and Compass" (1953)



SUPERIOR MAGNETO Corp.

PROFILE - Former US manufacturer (L.I. CITY, New York) - (see also Marching compasses)
It produced marching and wrist-top compasses (see also TAYLOR below).

Technical Data
- Diameter: 55 mm
- Depth: 18 mm
- Weight: 63 gr (with strap)
- Divisions: 360°, clockwise
- Material: plastic


Korean War (June 25, 1950 - July 27, 1953)
Paratrooper compass

Technical Data
- Diameter: 51 mm
- Depth: 18 mm
- Weight: 68 gr(with strap)
- Divisions: 360°, clockwise
- Material
- Casing: metallic
- Inner capsule: plastic
- Colour: greenish-brown
- Date: 9-50


SUUNTO

PROFILE - Finnish company founded 1936 by the engineer Tuomas Vohlonen, inventor of the first fluid filled compass (Patent accepted in 1933). (see also category NAUTICAL COMPASSES)

All wrist-top compasses feature the same design and dimensions: a square aluminium case containing a fluid compass, a leather strap attached to it and a gun-type sight on the bezel. There are only slight design differences like the various conversion tables on the back. These compasses are not really wrist compasses: the lanyard has a button-hole at its end to attach it on a uniform button.

Correspondance formula for degrees (astetta) and mils (6000, piirua).
100 piirua = 6 astetta
1 aste = 17 piirua
Picture at right: full table

Four rulers for direct reading of distances on maps: 1:20.000, 1:50.000, 1:100.000 and 1:42.000

Technical Data
- Strap: leather
- Case: aluminum
- Bezel: aluminum
- Dimensions: 53 x 53 x 23 mm
- Weight: 125 gr
- Divisions: 6000 mils, counterclockwise

Suunto Army version with a black bakelite back plate
and a 1:20,000 scale on one side.

Technical data
- Strap: leather
- Case and bezel: aluminium
- Dimensions: 53 x 53 x 23 mm
- Weight: 125 gr
- Divisions: 6000 mils,counterclockwise

TAYLOR

PROFILE - Former US-Company (Rochester, New York) - mostly known for the large variety of boy scouts and girl guides pocket compasses (s. this category) and for a paratroopers' wrist-top compass reproduction (see also SUPERIOR MAGNETO Corp. above). Hikers compass

Technical Data
- Diameter: 45 mm
- Bezel:
- Date: 1950-60s??
- The black and white card's design on the wrist compass above and the pin-on compass left is a negative copy of the original TRU NORTH's design (see patent's fig. below in TRU NORD).

TRU NORD

PROFILE - U.S. manufacturer located in Brainerd (Minnesota).
Special pin-on compass for hunters. It is built in a case that can be pinned onto a jacket's lapel. In this way, one can always keep an eye on it while both hands remain free to hold a rifle.
In the U.S. and Canada is the magnetic North pole very near and a compass needle can thus strongly deviate (up to+/- 30 degrees) from the geographical "True North" if you are in Alaska or New-Foundland. For this aim, the company TRU NORD offers an instrument already compensated for the region where it will be used and which already points to the "True North", hence the company's name.
The company also ensures new compensation if one moves to another region.
NOTE: This company claims that this system was invented by Vern E. Budlong shortly after WWII. In fact, compasses called TRUE NORTH and using this technique were manufactured from as early on as 1870 (see Casella Catalogue in Compass Chronicles, p. 48-49 and Symons's Patent no. 3293, dated Sept. 20, 1875). Symons's card design was also used by Taylor although in inverted colours.

Technical Data
- Diameter: 32 mm
- Length: 65 mm
- Weight: 42 gr
- Divisions: only 4 cardinals
- Radium paint markings: outer borderline of North arrow, line between needle cap and South

UOMZ (YOM3 in cyrillic letters)

Profile - Optics company in the former USSR.
UOMZ / YOM3 is the abbreviation of Уральский оптико-механический завод, Свердловск (Екатеринбург) i.e. Ural Optics and Mechanics (plant), Sverdlovsk (Yekaterinburg).

Technical Data
Compass alone:
- Diameter: 2.94" / 75 mm
- Depth: 0.78" / 15 mm
- Weight: 150 gr
- Manufactured: 1942
- Divisions: 6000 MILS, counter-clockwise
- Strap length: 11" 7 / 30 mm

NOTE : This large compass was originally very probably not intended to be born at the wrist. It is a well done and maybe unique makeshift product. All fixations are rivets and it cannot be dismantled.
Inscriptions on the dial:
- Top (in Russian): NORTH BLUE (North is where the needle's blue end points to)
- Left side: the Soviet Union's and the Red Army's symbols (hammer and sickel, a 5-branched star) and a logo representing a beam crossing a concave lense and being reflected by a mirror.

U.S. Gauge Co.

PROFILE - U.S. company established in 1904 and located in Sellersville, Pennsylvania, (new name: AMETEK).
On top of the casing is a rifle-type sight and on its side, a window opening on the compass rose is marked YOU ARE LOOKING. One only needs then to read the bearing's value. The line-of-sight on the casing is turned by 45° against the strap so as to allow for taking a bearing with extended arm. These words also appear on a smaller model called "Trail-blazer" sold by a retailer called The ROYAL AMERICAN COMPANY, a division of SOUTHWESTERN HOUSEHOLD EQUIPMENT CO.

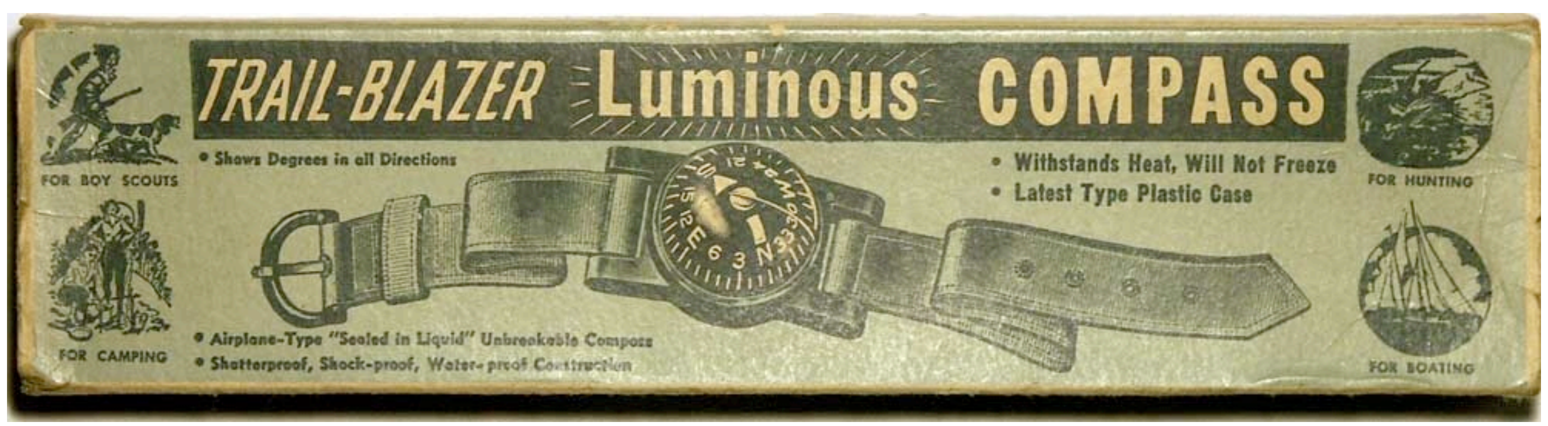
Compass, wrist , non liquid, Type L-1, Spec no. 21051-A

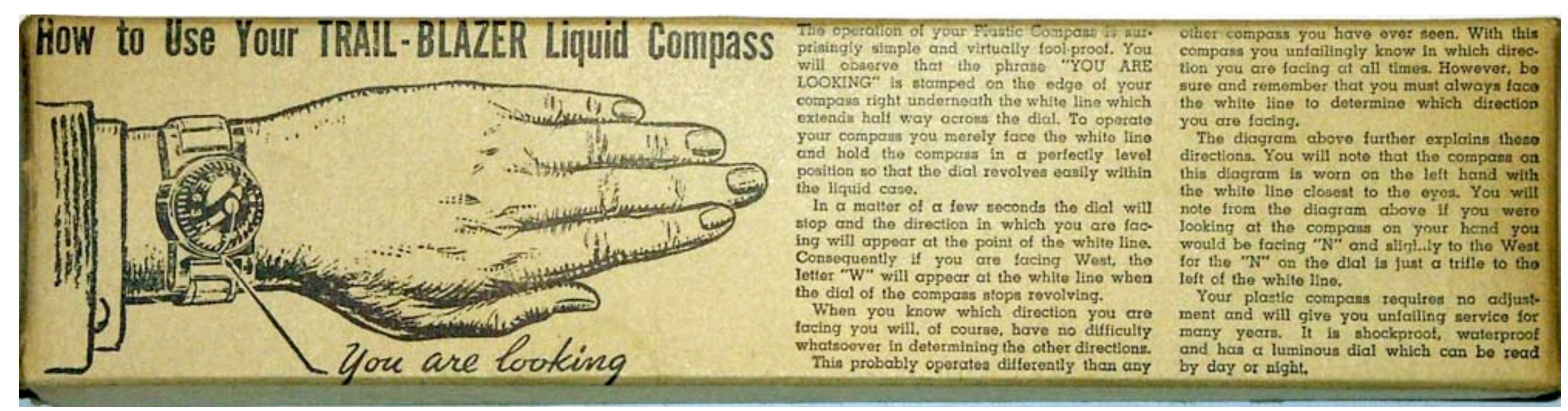
Technical Data
- Diameter: 46 mm
- Depth: 21 mm
- Weight (strap incl.): 35 gr
- Divisions: 360°, clockwise
- Strap width: 14 mm

The small modell called trail-blazer with leather strap and a view of its box (below). Inside the lid: the unser's instructions:
Note the words YOU ARE LOOKING on either side of the lubber's line. The compass was available with a whit eor a black case.

Technical Data

- Case width: 28 mm
- Depth: 20 mm
- Weight (strap incl.): 15 gr
- Divisions: ship compass type
- Strap width: 16 mm
- Liquid damped rose





YAL

PROFILE - former Czech manufacturer of most military optics.
Technical Data
- Dimensions
- Pouch: ... mm
- Compass diameter: ... mm
- Depth: ... mm
- Weight: ... g
- Graduation:
- Marching course scale: 360 deg., clockwise
- Compass rose: 360 deg. clockwise?
- Prism: hinged
- Indications on lid top:
- yal: manufacturer's code
- crossed swords: symbol for Czech military materiel (corresponds to the british crow foot)
- Model: VZ54, serial no.: 6134


Z.U.P. (ЗУП in cyrillic letters)

PROFILE - Zavod Uchebnikh Priborov (Factory for Educational Instruments, former USSR)
During the Soviet era this USSR company built the same compasses as the RED ARMY (AURKKA).
See also Pocket compasses.

Technical Data
- Diameter: 50 mm
- Depth: 20 mm
- Weight: 60 gr
- Graduations:
- 360 degrees clockwise (inner scale)
- 6000 mils anticlockwise (outer scale)
- Date (at case underside) : 1940


Future & Conceptual

Bell & Ross Compass Watch Prototype

Augmented reality! That's what we're dealing with here. This right here is the "Scout – Portable Pedestrian Navigation Device" and it's intended to be used by people traveling about, connecting then with local knowledge, wisdom, and GPS information to guide them. It's a digital compass is what it is. It encourages "uninhibited exploration, discovery, documentation, and sharing."

Can you imagine the games you could play with this lovely little thing?

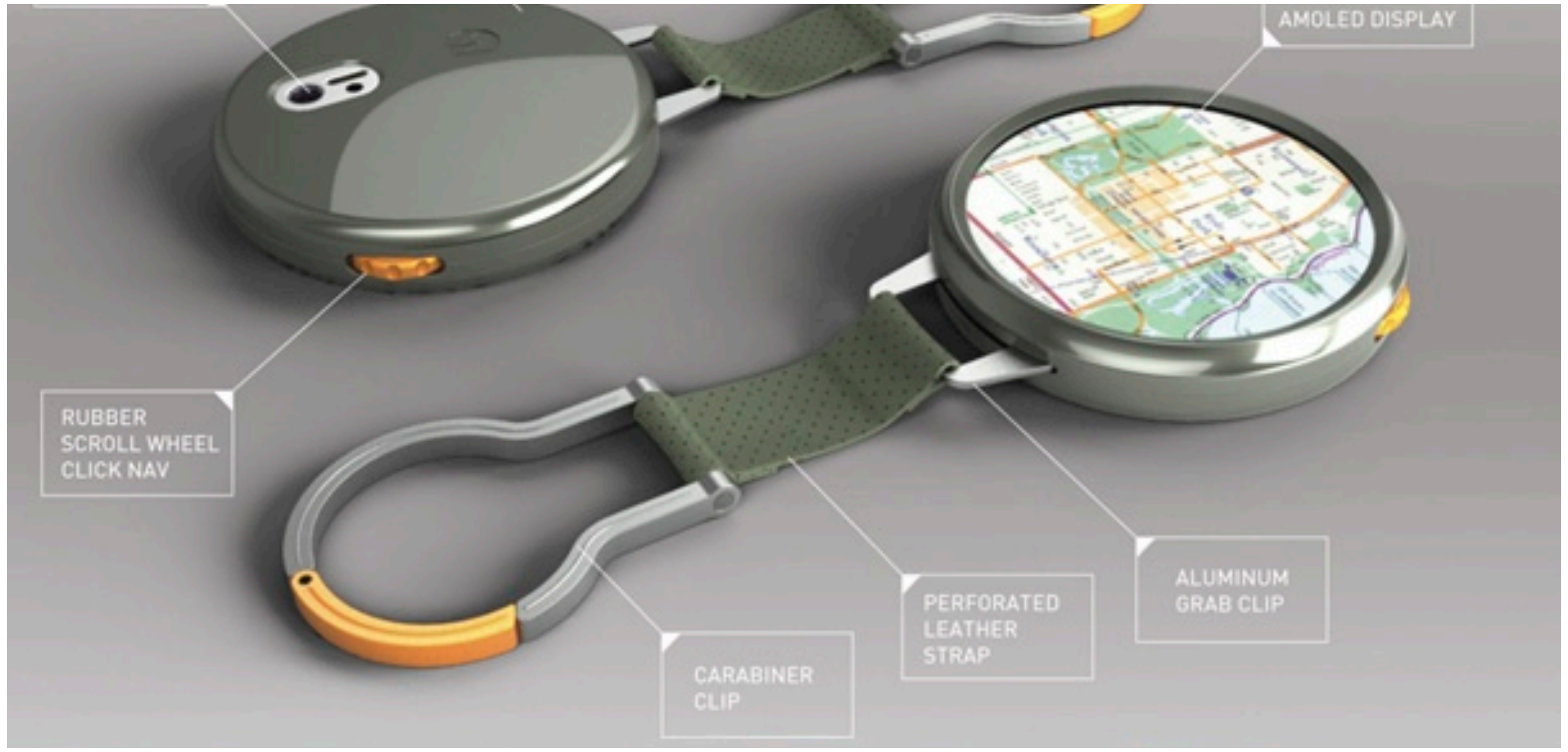
The Scout has a screen, a camera, and a scroll wheel click button. As you know from using computer mice for years and years now, that's all you need! With this device you could start a whole social-media revolution, bringing the people back to the streets!

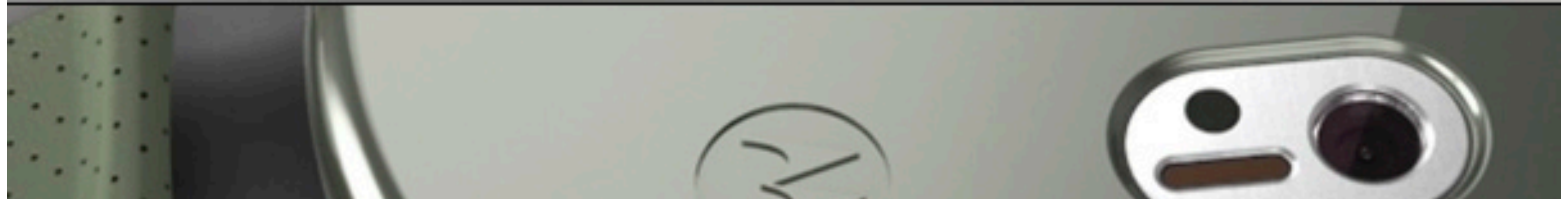
Another interesting thing is the information Matt Marrocco has given us! In the submission we've got here of this project, we get all of the programs used to create it: Photoshop, Illustrator, Rhino, and Hypershot. That's awesome.

Do you agree with giving up your tools along with the design?

Very big questions in this very simple design.

Designer: Matt Marrocco





Stop right there! Why make a compass digital? Couldn't I just find north using a real-deal analog compass? Why yes! But this compass right here doesn't tell you north, south, east, and west, it tells you the direction you want to go! No more maps for you. No more reliance on the magnets of the world! No more even relying on the electricity of the world, this little puck right here has a dynamo for hand charging. How about that?

I know we've got some dynamo users out there, would you say this is really "dynamic?"

How do you say, "dynamotastic?"

This device is called the "Kompis," and for lack of a more nutshelled way to say it

: it's a GPS mapmaker without the annoying lady voice (or Snoop Dogg voice) or visuals. It just works on lights. It does have some audio bits for the interface, but other than that: just a ring around the posy.

Configure either by programming locations in with your computer through a USB cable, or walk around and hit the "remember" button whenever you get to a place you'd like to sometime get back to. The light you see around that ring points in the general direction of your wanted location. It goes from blue to red in a gradient of colors showing how close or far you are from your desired location.

Easy to use, simple controls, simple look.

Fun for explorers!

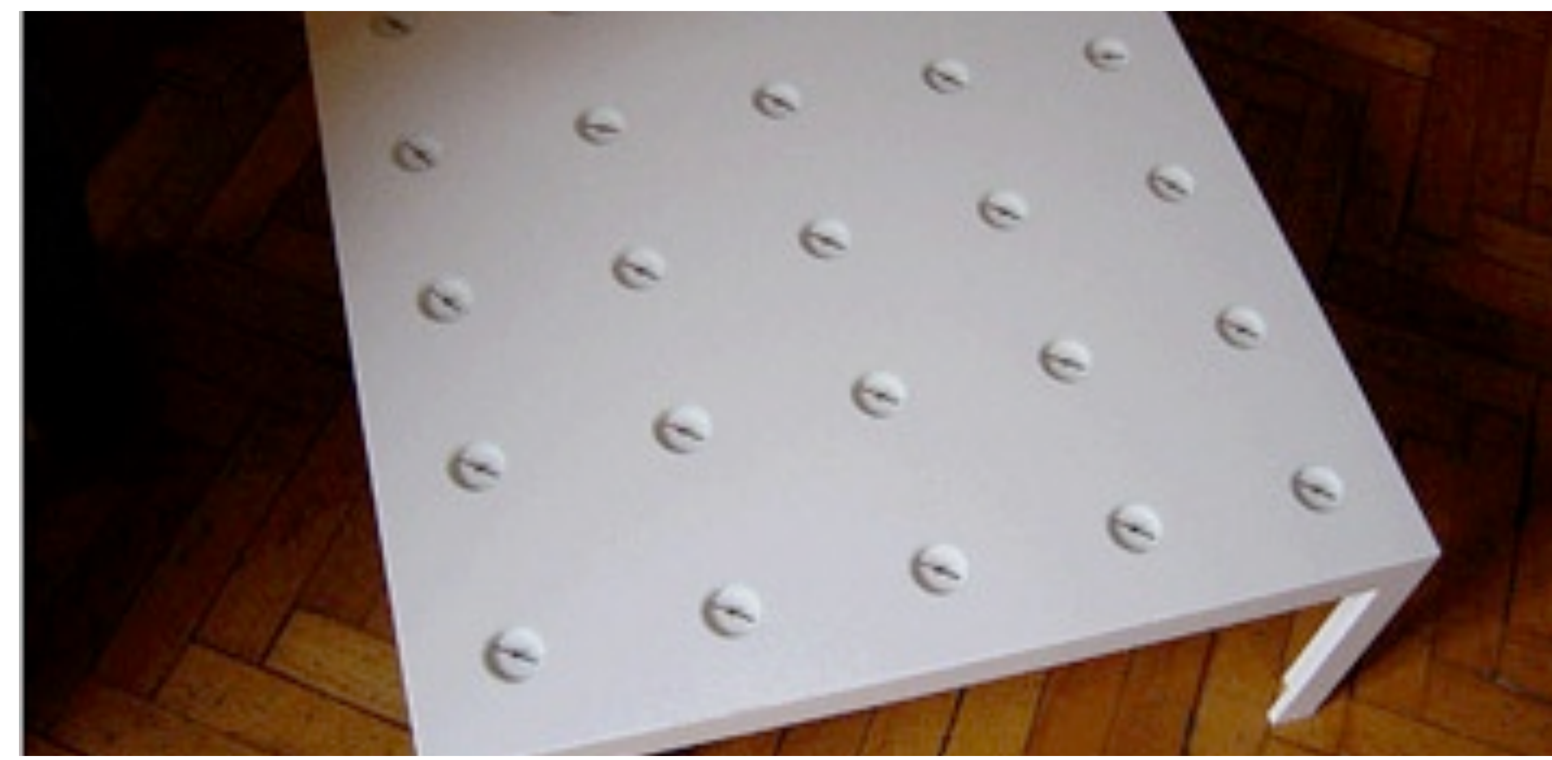
Indecisive? How about a GPS coin called the Inbi-Out to make all your decisions. File this under "not gonna happen anytime soon," but it's nice to fantasize. The Inbi-Out coin tosses a 50/50 chance of where you should eat, drink, hang out, etc.., and displays the final decision on a tiny embedded screen complete with GPS coordinates and directions. It'll also record every destination you go to into some magical databank for future reference (or dystopian spying). Too soon?

Designer: Ju-Wei Chen

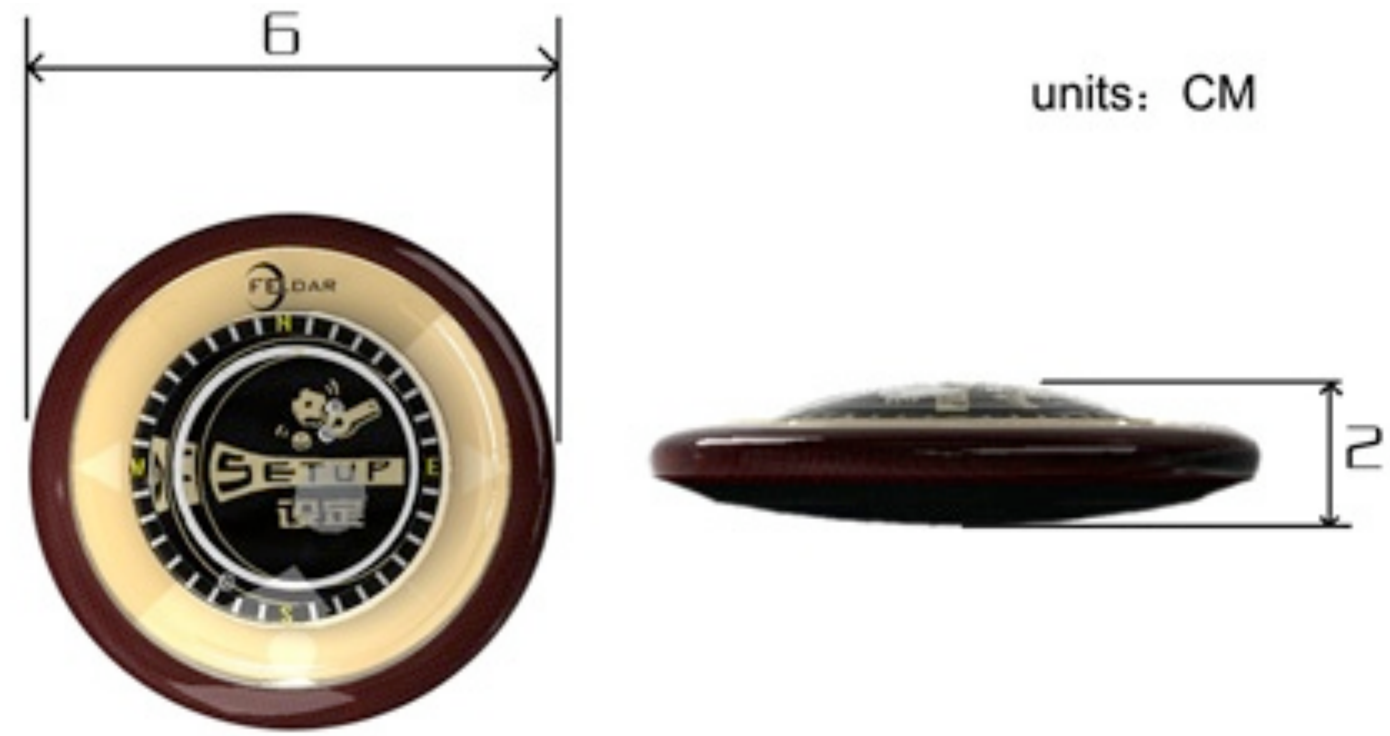
The Compass Phone does not support any verbal communication side, but has only a GPS function. It measures the distance between two people in real-time and then converts it to the time it takes for them to meet each other by either transport or time unit. A compass is hidden under the digit display. The centre of the compass always indicates the user's position and its needle indicates the other person's direction.

White Corian, Instrument Glass, 25 Compass Needles.
Dimensions: 750 mm x 750 mm x 350 mm

The original Compass Table was developed as part of the Placebo Project. This version is a low table made from white corian. When electronic devices are placed on its surface, the needles twitch and spin in response to electromagnetic fields produced by the devices.



Feldar is a 2-way radio from Jian Guan which uses red LED’s surrounding its case to indicate the direction of other radios. The addition of a compass and its disregard for GPS signal makes its a low cost choice for hiking, skiing and other long-ranging outdoor sports. That said, I can imagine a bunch of 10-year-olds having a crapload of fun playing in the woods with these; even Jian himself calls them Walkie-Talkies.



Ford Explorer Prototype Dashboard

Do you like finding new stuff and adventure? GPS seems to have taken the fun out of bringing the old compass and map on a hiking trip, don’t you think? Well, if your GPS device is spoiling all the fun, you could always pick up one of these conceptual digital compasses, and ditch your existing GPS device at home. You can configure the location that you want to go through in it via your computer (connected by USB), and the light around the ring in the compass will point in the general direction of your wanted location, going from red to blue in a gradient of colors, depending on how close or far you are from your desired location. Of course, it seems a little counter-productive, considering those turn-by-turn GPS devices could give you the exact directions, but then again, where would the fun be in that, right?

This one's for those of you who have low or no visibility with the eyes. Blind, sometimes people say. This is what's known as the "DROP" GPS system, and it's all hand-held. It uses the 3D dots you might be used to calling braille, here known more as Tactile Display technology, and it all works in conjunction with things such as a cane or seeing eye dog sometimes used by the blind. Smooth sailing on an abstract device.

It'd be interesting to try'n use one of these, blind or sightful, The 3D map of the city is lifted up from the surface of the device and moves as you move, like a compass and with zoom, search, voice command, and everything. All in your palm.

BONUS: I suggest an alternate means marketing this device – as a very sophisticated game of treasure hunter! For grown up kids.

Designer: Allan Sejer Madsen and Lukasz Natkaniec