The Superficial musculoaponeurotic system (SMAS) fascia is a fanlike fascia that envelops the face and provides a suspensory sheet which distributes forces of facial expression. The SMAS is continuous with the platysma muscle inferiorly and the superficial temporal fascia superiorly, and it is superficial to the parotomasseteric fascia. FN lies below the parotomasseteric fascia at the parotid region, but this can be very thin and variable. Facial nerve branches that exit the parotid gland are deep to the SMAS.
Temporal Frontal ---The mean distance from the lateral canthus to the anterior, middle and posterior rami of the FTN at the point where they crossed the superior border of the zygomatic arch was found to be $3.8 \pm 0.4$ cm, $4.0 \pm 0.6$ cm and $6.0 \pm 0.4$ cm, respectively.

The authors proposed that the FTN is protected by a fascial layer, that they termed parotid-temporal fascia, as it travels over the zygomatic arch\[^9\]. While no specific anatomic landmark was evaluated for localisation of the nerve, it was suggested that division of the superficial musculoaponeurotic system (SMAS), as occurs during high-SMAS face lifts, would be safe as the FTN was covered by the parotid-temporal fascia.

Due to its high rates of injury and significant functional morbidity following injury, the fronto-temporal branch (FTN) has been extensively studied. The FTN is at high risk of injury during surgical procedures such as facelift, cutaneous surgery and bicornal approaches for craniofacial surgical access\[^11,12\]. One of the most widely used clinical estimates of FTN course is Pitanguy’s line, defined by a line drawn from a point $0.5$ cm inferior to the tragus to a point $1.5$ cm superior and lateral to the eyebrow\[^4\].

The frontal branch of the facial nerve is deep to the superficial temporal fascia. Therefore, to avoid injury, the plane of dissection should not be as deep as the temporal fascia.
Frontal branch of the TZ division estimated by pitaguay's point: 0.5 cm lat to tragus and 1.5 cm lateral to the lateral brow

Danger zone for the temporal branch of the facial nerve, defined as the region overlying the zygomatic arch between 1.8 cm anterior to the helical root and 2 cm posterior to the anterior end of the arch.

Zuker’s point. Patient marked for cross face nerve grafting procedure. The palpable zygomatic arch is marked as is the pre-auricular incision. The dotted line represents the vector of the frontotemporal branch of the facial nerve. The cross indicates Zuker’s point (midway between the root of the helix and the oral commissure).

Zygomatic ---Zuker’s point, a point midway from the root of the helix to the commissure of the mouth, was demarcated on 18 fresh cadaveric hemifaces (Figure 4)[16]. The authors proposed that the ZN was observed within a mean distance of 2.31 mm from Zuker’s point.
Buccal -- In all specimens, the BN was found to be 35.62 ± 7.11 mm from the tragus to the point of emergence at the anterior edge of the parotid gland. A common area of injury to the BN is at its exit point from the parotid within the loose areolar sub-SMAS tissue anterior to the gland. Buccal motor nerve branches can also be injured with aggressive dissection medial to the anterior border of the parotid gland.
Injury to the marginal nerve can occur when extensive tissue dissection is performed in the neck. If a platysmal transection is performed, the possibility of nerve injury increases. (landmark of marg: deep to platys but at 2cm lateral to corner of mouth takes a more superficial position)

However, recent literature tends to agree that the MMN may be found almost equally distributed above and below the inferior border of the mandible, but never greater than 2 cm inferior to the mandible. While most studies agree that the two fingerbreadth distance provides adequate clearance for the MMN, the nerve can be encountered within millimetres of this landmark. As a result, a commonly used rule of thumb in clinical practice is to place incisions either two-finger breadths or 2cm, below the inferior border of the mandible. While most studies agree that the two fingerbreadth distance provides adequate clearance for the MMN

Therefore, it was proposed that a starting incision 3 cm or two finger’s breadth (an average of 35 mm) below the inferior border of the mandible provides a greater distance and consequently reduces the risk of nerve injury (Figure 5).
A vertical reference line through the middle of the earlobe was created perpendicular to the Frankfurt horizontal line. Paper overlay tracings were then done to record each nerve's course. The 26 tracings (left and right necks) obtained from the cadavers were overlapped to yield a distribution pattern.

The upper course of the GAN consistently fell within a 30-degree angle posterior to the described reference line. The 30-degree angle accurately identifies the nerve’s course and points to a danger zone in the vicinity of the ear lobule. By marking this danger zone early during facelift surgery, the surgeon is more clearly oriented to the location of the nerve.

See the facial danger zones book also on the great auricular nerve landmarks
The great auricular nerve (yellow arrow) as seen during facelift surgery.

Paper overlay tracings were obtained after identification of the nerve's course.

A vertical line (black arrow) through the middle of the earlobe was drawn perpendicular to the Frankfurt horizontal line (blue arrow).

The great auricular nerve consistently fell within a 30-degree angle (blue arrows) in the vicinity of the earlobe. Thus, a danger zone for the nerve was identified (shaded triangle).
Localisation of the cervical branch of the facial nerve. The nerve can be located 1 cm below the angle of the mandible on a line perpendicular to that drawn from the mentum to the mastoid process.
The facial skin is supplied by branches of the ECA, the superficial temporal artery, facial artery, transverse facial artery, and infraorbital artery—these vessels anastomose together to form a subdermal plexus. The subcutaneous flap is supplied mainly by musculocutaneous perforators as they emerge from 3 main arterial trunks: the facial, superficial temporal, and ophthalmic arteries. Most blood flow originates in the central facial area, and rich anastomotic networks exist. This allows for skin-flap survival after undermining. As more extensive dissection is carried out medially, the risk of ischemia in the flaps increases. With the standard subcutaneous and SMAS two-layered facelift however effectively divides the skin from its underlying perforating branches. However these flaps have been used for many years with low flap failure.
Layers of the scalp: The first layer consists of the skin and subcutaneous tissue. Immediately deep and firmly bound to this layer is the temporoparietal (sometimes called superficial temporal) fascia. This layer is contiguous with the superficial musculoaponeurotic system (SMAS) as it passes over the zygomatic arch into the mid face, and it is contiguous with the galea aponeurotica above the superior temporal line.

Beneath the temporoparietal fascia lies a loose areolar and avascular tissue layer that separates the fascia from the temporalis muscular fascia (sometimes termed the deep temporal fascia). This areolar
layer allows the superficial scalp to move freely over the deeper and more fixed temporalis muscular fascia, temporalis muscle, and pericranium.

Confusing the issue further is the division of the temporalis muscular fascia as it splits into a superficial and deep layer (of the deep temporal fascia) surrounding a fatty tissue pad at the temporal line of fusion, approximately 2 cm above the zygomatic arch. The temporalis muscular fascia is contiguous with the pericranium above the superior temporal line and is contiguous with the masseter muscle fascia below the arch.