Correction

In Astérisque 363-364 Exposé XVII Déf. 1.1.1 and footnote (i), one should assume that $\mathrm{Spec}(\mathcal{O}_{X,x}) - \{x\}$ is quasi-compact, e.g. X locally noetherian or locally topologically noetherian suffices. In general for a closed subset $Z \subset X$ and an abelian étale sheaf F on X, the local cohomology sheaves $\mathcal{H}^i_Z(X, F)$ are defined and are compatible with étale localization, but for the calculation of stalks using strict henselizations one needs that $X - Z \to X$ is quasi-compact because of a passage to the limit of toposes. In general $R^p i^!_x$ for $x \longrightarrow X_{(x)}$ differs from the one for $x \longrightarrow X^h_{(x)}$ and both differ in the stalk from the one for $\bar{x} \longrightarrow X_{(\bar{x})}$.

~~[illegible]~~ But in these questions there is a positive result for the sheaf $i^!_x$, and also that if $\mathcal{O}_{X,x} \longrightarrow \mathcal{O}_{X',x'}$ is an essentially étale local map then local cohomology sheaves for $x \longrightarrow X_{(x)}$ give the ones for $x' \longrightarrow X'_{(x')}$ and the pull-back sheaf. This is because there is a closed subscheme $x \in Z \subset X$ defined by a finitely generated ideal over which $X' \longrightarrow X$ is finite étale, local cohomology for $Z \longrightarrow X$ is well-behaved and for $x \to Z$ we have usual étale localization.

The following are examples for the ~~alluded~~ mentioned pathologies.

(1) Let k be a field, $X = \mathrm{Spec}(k[t_1, t_2, \dots])$,

$\eta_n \in X$ the k-point corresponding to $t_i \longmapsto \begin{cases} 0 & \text{for } i \leq n \\ 1 & \text{for } i > n. \end{cases}$

$x \in X$ the origin.

Then $Y = \{\eta_0, \eta_1, \dots\} \cup \{x\}$ is a closed subset, and it is the one-point compactification of the discrete $\{\eta_0, \eta_1, \dots\}$.

Then for $\Lambda \neq 0$ the sheaf Λ_Y has trivial $i_x^!$ $(= R^0 i_x^!)$ for $x \longrightarrow X$ but non-trivial for $x \longrightarrow X_{(x)}$.

2) Let ξ_n be the generic point of $V(t_1, \dots, t_n)$, $\bar\xi_n \to \xi_n$ a separable closure, $\Lambda \neq 0$, and consider $\mathcal{F} = \bigoplus_n i_{\bar\xi_n *} \Lambda$ on X. ~~Can also do it with $\bar\xi_n$ the point of the henselization lying above ξ_n.~~ Then one can see that

$R^1 i_x^! \mathcal{F}$ for $x \longrightarrow X_{(x)}$ is strictly contained in the one for the henselization, which in turn if k_s/k is infinite is strictly contained on $\bar x$ in the one for the strict henselization.

In exposé XVII 5.2.2 assume the schemes are noetherian, or else use the definition of "perversity function" in the non-noetherian case indicated in [Gabber,2004]. In page 143 line 8 "is isomorphic to " should be " maps isomorphically to".

Remarks on Astérisque 363-364

page xviii the formula $cd_\ell(K) = d + cd_\ell(k)$ fails for $\ell = 2$, k formally real of finite 2-virtual cohomological dimension and K not formally real, e.g. for the henselian or complete local ring at the origin of the real variety $\sum_{i=1}^{n} X_i^2 = 0$, $n \geq 2$.

Exposé IV 2.1.11 : Using 1.1.3, let K' be the unique field of representatives of A containing the β_i, $i \notin e$ and the β'_i, $i \in e$. If K'_e is defined similarly to K_e then we can identify

$$\Omega^1_{\bar{A}/K_e} = \Omega^1_{\bar{A}/K'_e} = \Omega^1_{\bar{A}} / \left(\sum_{i \notin e} \bar{A}\, d\beta_i \right)$$

, hence also identify the completed modules ...

Lemme 4.3.6 line 3 morphisme A-linéaire $B \longrightarrow C'$

Exposé XVII p.352 l. 11 I do not need "excellent"; also in the reference [Gabber, 2004] §8 I made a mistake: I should have assumed $n > 1$ and not $n > 0$, as for the zero ring the $n(x)$'s are not defined

4.3.2.1 missing))

~~6.2.4.1~~ 7.3.4 "commute aux limites inductives" probably it was also meant that the category admits inductive limits

p. 421 above last diagram : probably à isomorphisme près (no s)

XVIII$_B$ p.479 top $\supseteq$ should have been $\supset$

Appendice A is the first scan and not the "cleaned" version

Other remarks on Gabber - Orgogozo, Invent. Math. 2008 : (not mistakes)

For the trace map on differentials for finite locally free lci morphisms, a previous reference is E. Garel " An extension of the trace map" JPAA 1984

p. 73 . On U'_0 $X = 1$ on $V(h)_{red}$ so we do not need to go to the normalization U'