CHAPTER 7

RESULTS

CHAPTER7

RESULTS

7.1STUDY1: *DASARĀ* EVENTS

7.1.1 Yoga Program

Plate10: Participants who performed Suryanamaskar in the Yoga Program

Plate11: Acrobatic performances with yoga poses by Kids

Table 9: Schedule of all activities in the yoga program and REG event data for each Yoga Program segment

Yoga Program	N	∑Z(For reference)	Z_c	P	Es
Full Event-*Yoga* Program	**13815**	**76.35**	**0.65**	**0.52**	**0.01**
Assembling of people before practice (Predata)	747	13.72	0.50	0.62	0.02
Guests Arrival	**473**	**-52.04**	**-2.39**	**0.02****	**-0.11**
No activity	984	17.96	0.57	0.57	0.02
Youngsters in Marathon	**158**	**-29.7**	**-2.36**	**0.02****	**-0.19**
Announcements	898	36.63	1.22	0.22	0.04
distribution of free T shirts &Guests settling on Dias	254	8.34	0.52	0.3	0.03
Suryanamaskar practice	700	-2.97	-0.11	0.9	0.00
Inauguration	**1701**	**81.03**	**1.96**	**0.05****	**0.05**
*Yoga Guru*1 speech	1383	44.55	1.20	0.23	0.03
Suryanamaskar practice	446	24.89	1.18	0.24	0.06
Classical *Suryanamaskar* practice	939	-1.98	-0.06	0.95	0.00
Yoga Guru 1with crowd doing SN	299	22.77	1.32	0.19	0.08
Mudra Yoga	478	10.18	0.47	0.64	0.02
Media Interview to *Yoga Guru* 1	284	-14.99	-0.89	0.37	-0.05

Acrobat *Yoga*	**1966**	**-95.18**	**-2.15**	**0.03****	**-0.05**
Advance Yoga Technique	486	30.97	1.40	0.16	0.06
*Yoga Guru*2	240	0.42	0.03	0.62	0.00
Vote of thanks	69	-8.49	-1.02	0.31	-0.12
Crowd leaving(Post data)	1310	-9.76	-0.27	0.79	-0.01

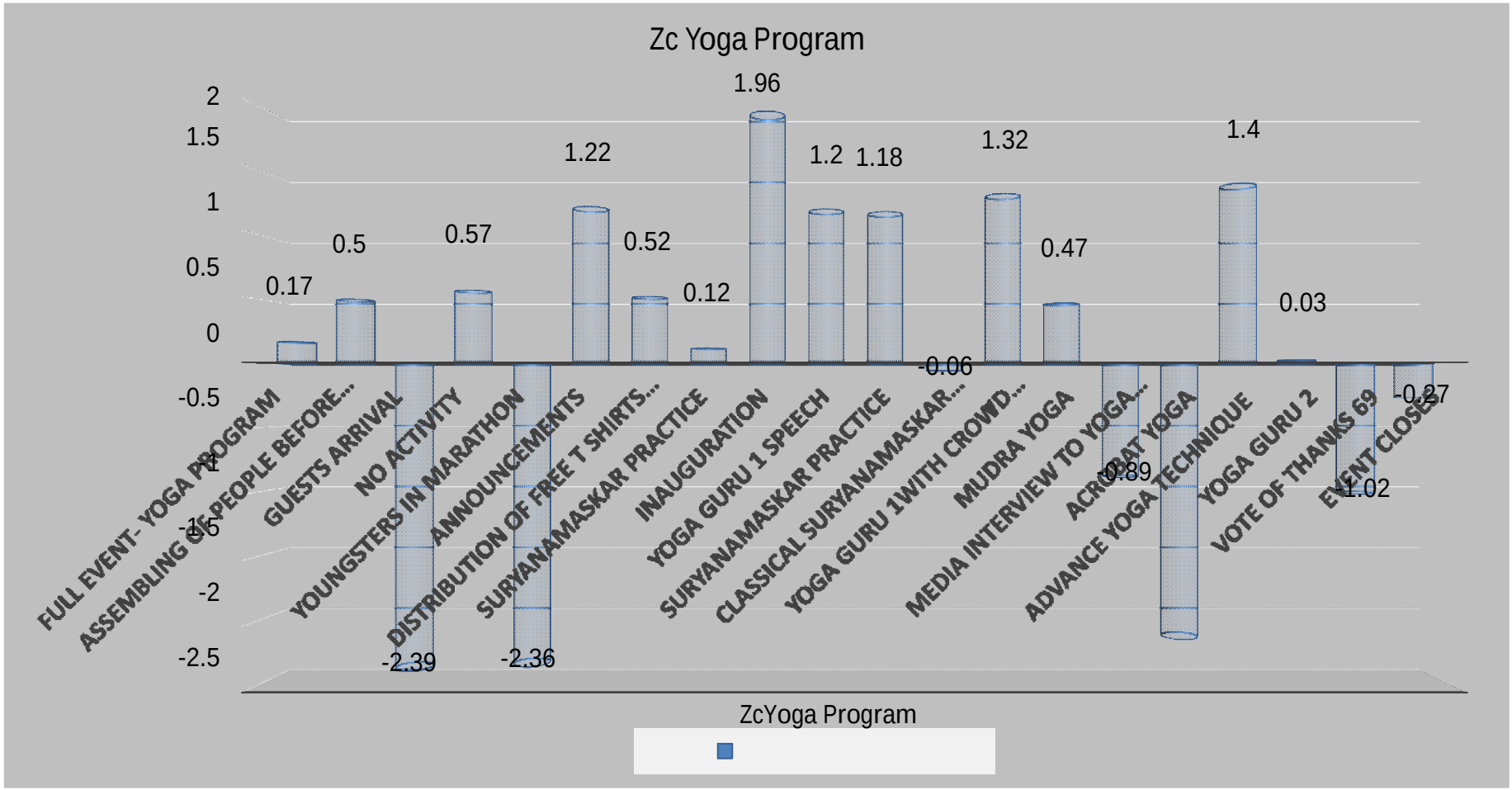
The time-stamped epochs, their respective trial counts and statistics are presented in the tables where N= number of REG events, Zc= combined z-score, Es=effect size (Zc/√N; equal to mean REG z), P =probability (2T) of Zc,

**significant at $P < 0.05$,* trend at <0.1> 0.05(2T).

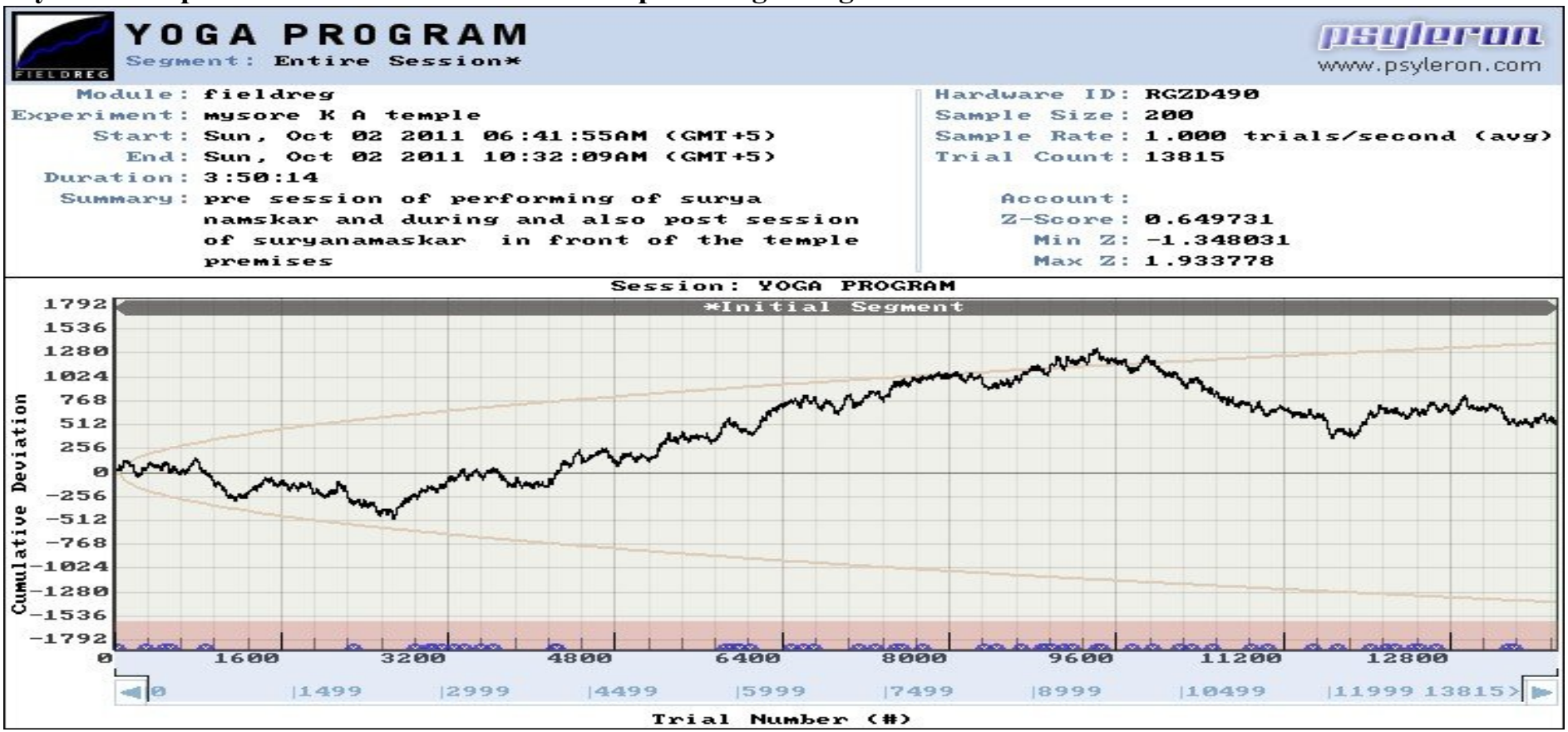
The occurrence of significant REG deviations were observed during periods of arrival of guests (N events=473,Zc= - 2.39,*P*=0.02),marathon (N events=158,Zc=- 2.36,*P*=0.02),inauguration (N events=1701,Zc=1.96,*P*=0.05) and acrobat performances (N events= 1966,Zc=2.15,*P*=0.03).

No significant deviations observed during full event, pre(assembling) and post session (Crowds leaving).

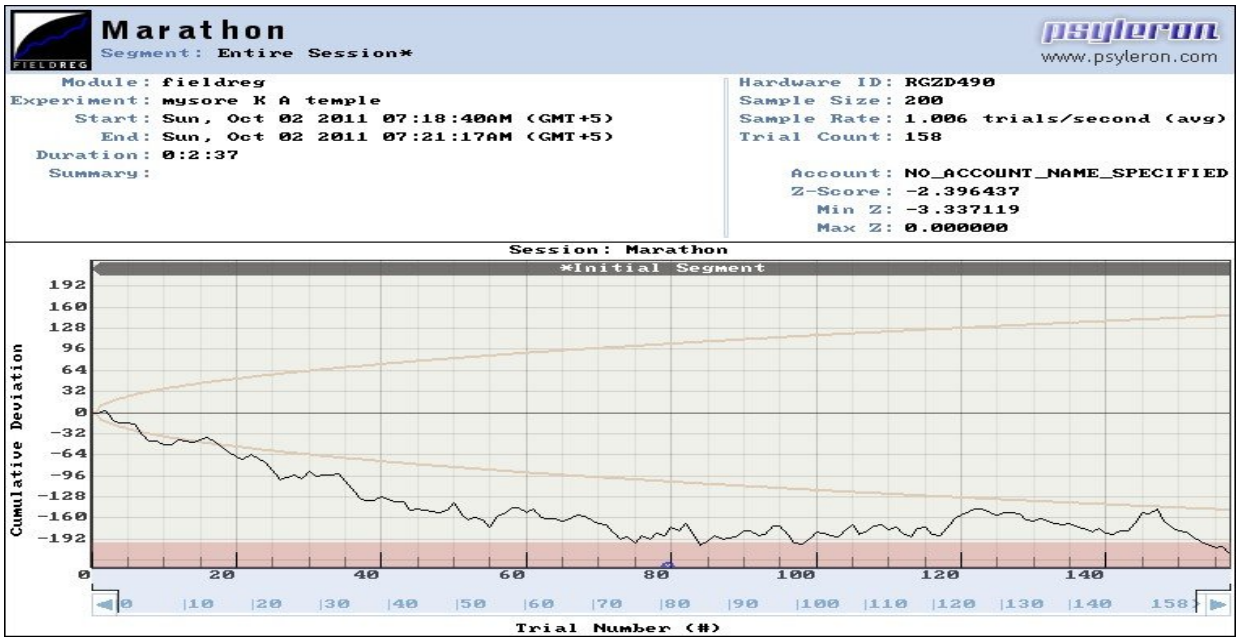
Graph1: REG data corresponding to epochs of attentiveness in field settings of the Yoga Program. Values>1.96 relates to the statistically significant anomalous deviations.

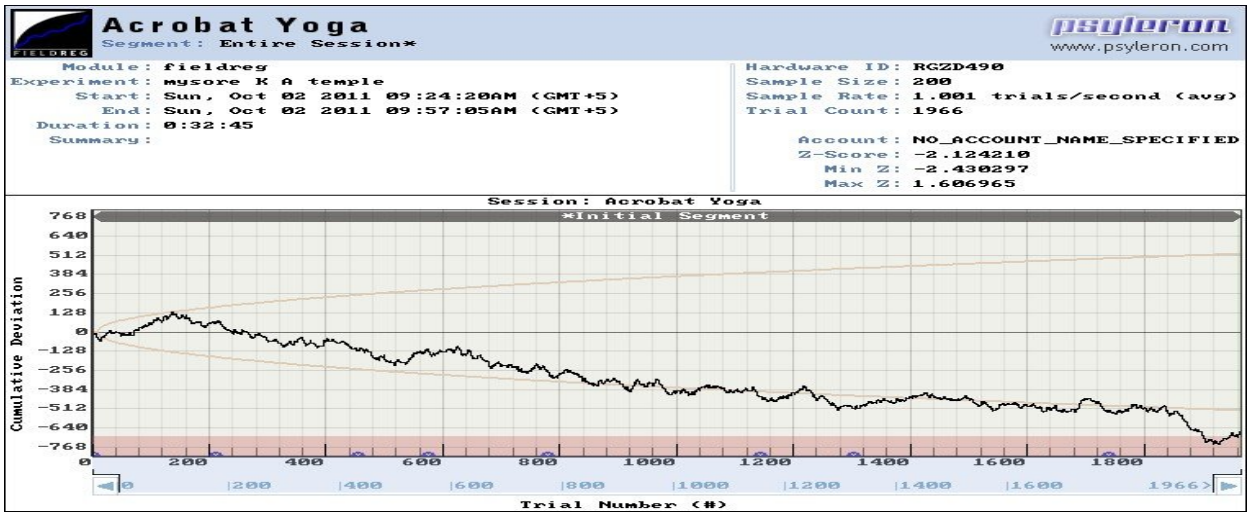


Psyleron Graph 1: Entire Session of REG Graph of Yoga Program



1. SIGNIFICANT DEVIATIONS IN YOGA PROGRAM





7.1.2Dance Program

Plate12: Dance performances in Mysore Palace

Table 11: Schedule of all activities in the cultural dance program in Mysore palace

	Dance In Mysore Palace				
	N (in secs)	**∑Z(For reference)**	**Z_c**	**P**	**Es**
Full event	14642	164.90	1.36	0.17	0.01
Musical band1	259	-7.64	-0.47	0.64	-0.03
Musical band2	117	24.75	2.29	0.02**	0.21
Musical band3	386	-12.16	-0.62	0.54	-0.03
Musical band4	41	11.74	1.83	0.07*	0.29
Prize and medal distribution	895	-17.68	-0.59	0.56	-0.02
Bands disperse	691	0.71	0.03	0.98	0.00

Break	155	-7.64	-0.61	0.54	-0.05
Crowd chitchat	564	52.89	2.23	0.03**	0.09
dancers intro	291	-22.20	-1.30	0.19	-0.08
lead dancer1	1232	76.93	2.19	0.03**	0.06
group dance	1042	-14.14	-0.44	0.66	-0.01
lead dancer1	251	34.51	2.18	0.03**	0.14
group dance	730	-71.13	-2.63	0.01**	-0.10
lead dancer1 introduction	208	0.28	0.02	0.98	0.00
missing boy announcement	167	33.09	2.56	0.01**	0.20
world harmony	752	-28.99	-1.06	0.29	-0.04
missing boy announcement	82	-9.48	-1.05	0.29	-0.12
lead dancer1	402	45.82	2.29	0.02**	0.11
Felicitation(Dancer1)	1221	-4.67	-0.13	0.90	0.00
Narration	859	-10.47	-0.36	0.72	-0.01
dancer2	628	59.40	2.37	0.02**	0.09

Dance drama	1040	-26.59	-0.82	0.41	-0.03
War scene in dance	64	19.09	2.39	0.02**	0.30
Fire scene	792	-14.99	-0.53	0.60	-0.02
Magical tricks	188	30.69	2.24	0.03**	0.16
yoga poses	1334	-14.99	-0.41	0.68	-0.01
Felicitation(Dancer2)	211	36.49	2.51	0.01**	0.17
crowd dispersing (Post Data)	40	1.27	0.20	0.84	0.03

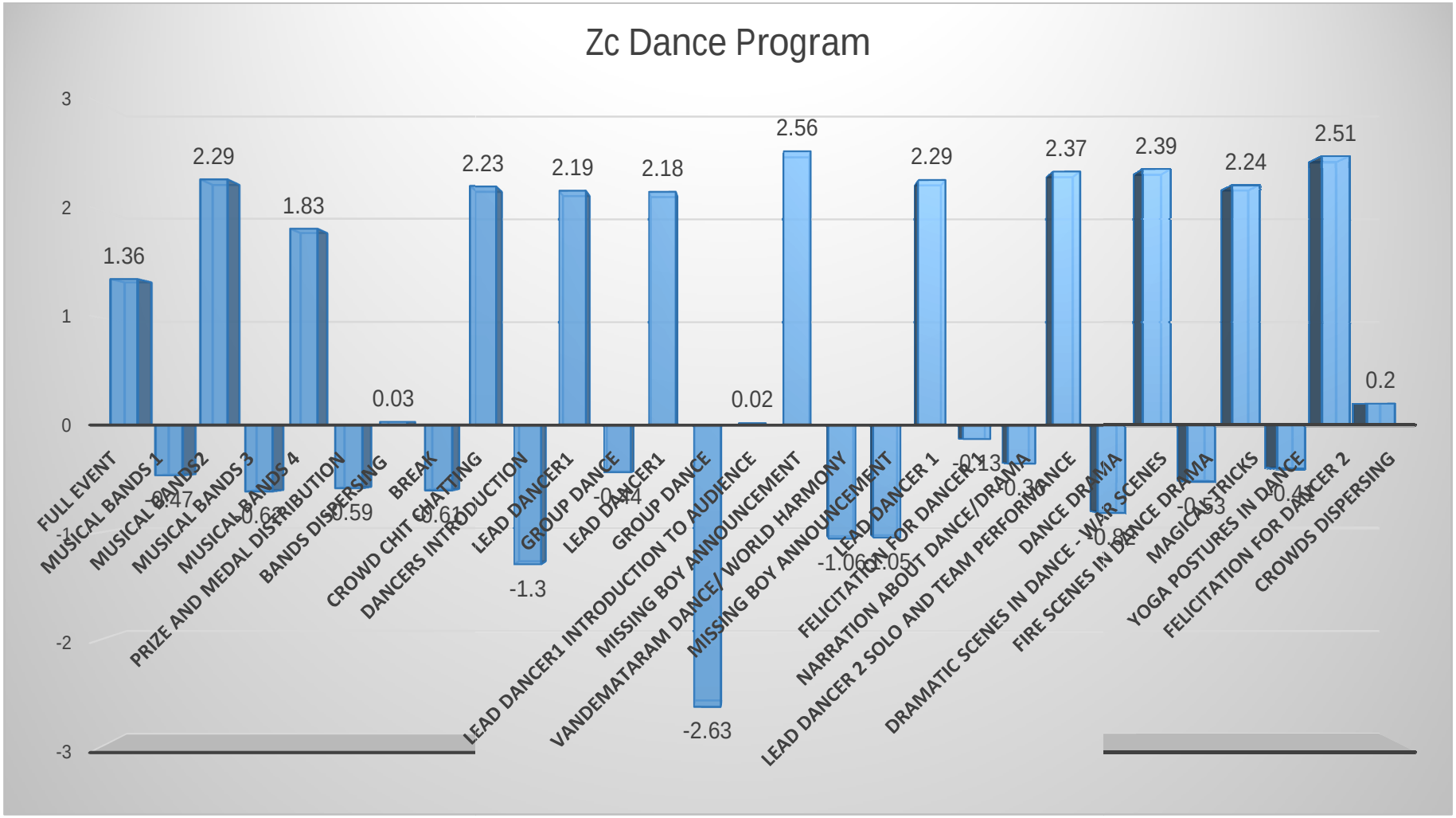
The time-stamped epochs, their respective trial counts and statistics are presented in the tables where N =number of REG events, Zc= combined z-score, Es=effect size (Zc/√N; equal to mean REG z), P =probability (2T) of Zc.

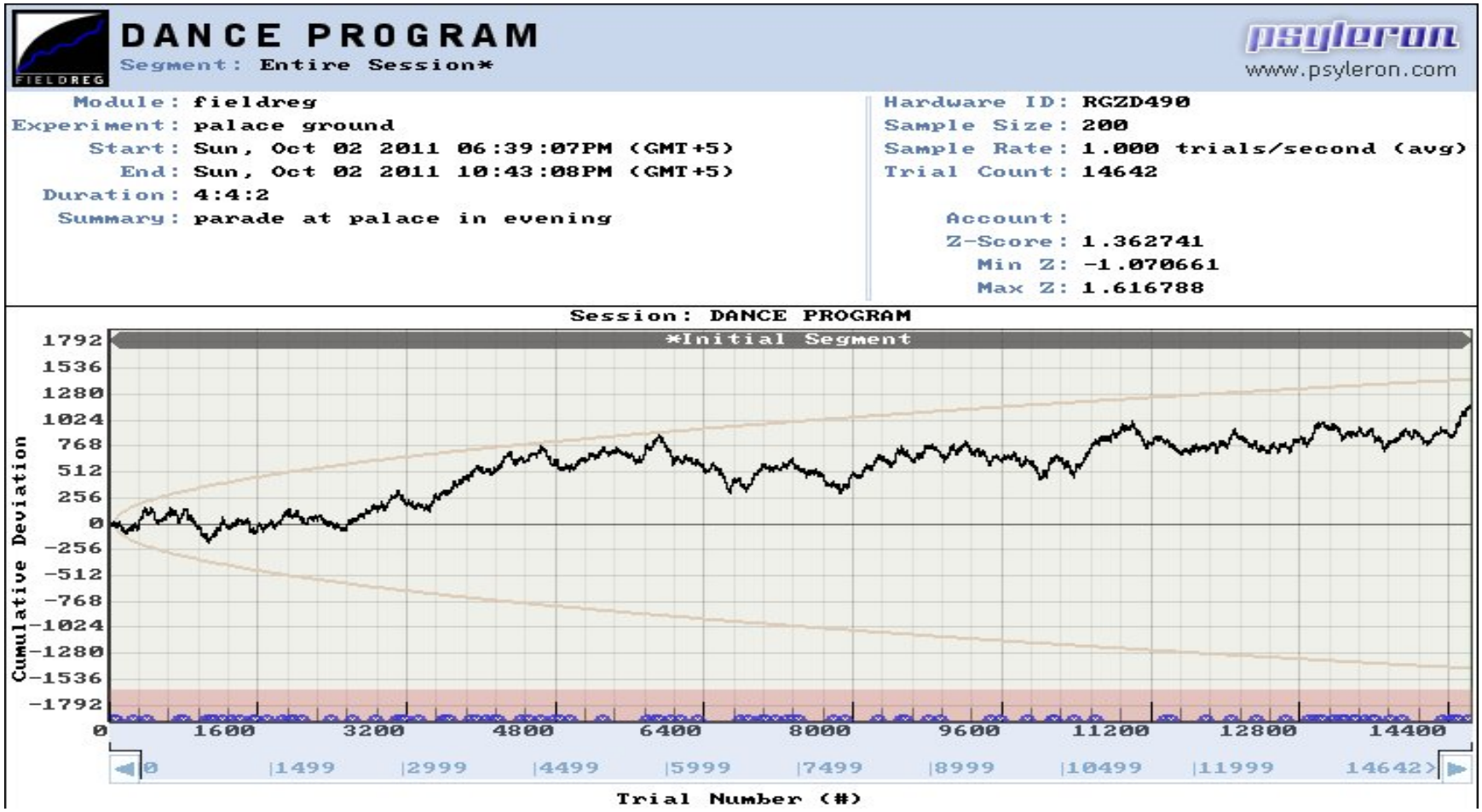
**significant at $P<0.05$,* trend at<0.1>0.05(2T). REG: Random event generator.

The occurrence of significant REG deviations during periods of musical band2(N events=117,Zc=2.29,P=0.02), crowd chitchatting (Nevents=564,Zc=2.23,P=0.03), leaddancer1 (N events=1232,Zc=2.19,P=0.03),(Nevents=251,Zc=2.18,P=0.03)(Nevents=402,Zc=2.29,P=0.02),groupdance(N events=730,Zc=-2.39,P=0.01),Missing boy announcement(N events=167,Zc=2.56,P=0.01),lead dancer solo & team performance (Nevents=628,Zc=2.37, P=0.02), war scenes (Nevents=64,Zc=2.39,P=0.02), magical tricks (Nevents=188,Zc=2.24,P=0.03), felicitation for lead dancer2 (Nevents=211,Zc=2.51,P=0.01) REG trend observed during musical band4 (Nevents=41,Zc=1.83,P=0.07).

No pre-session recording taken. No significant deviations observed during **full event** and post session.

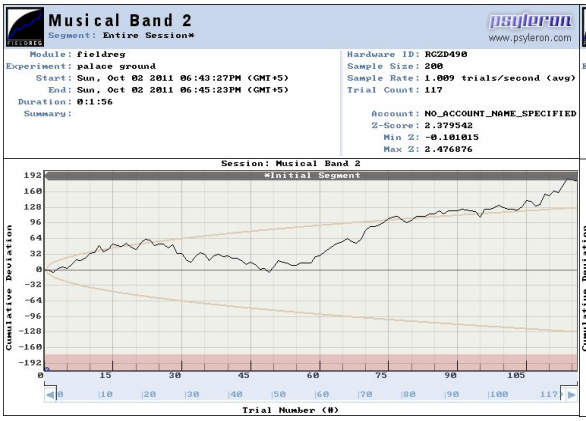
Graph 2: REG data corresponding to epochs of attentiveness in field settings of the Cultural Dance Program. Values >1.96 relates to the statistically significant anomalous deviations

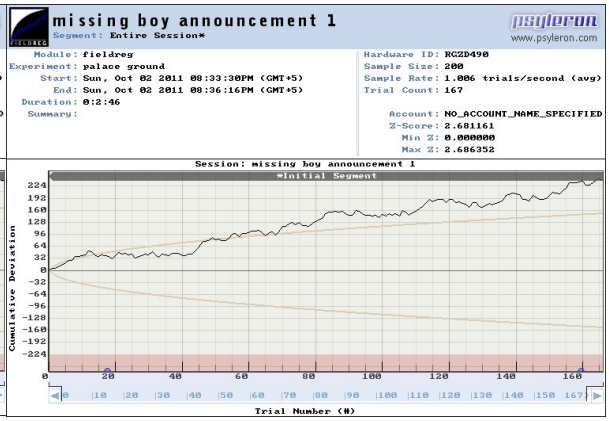


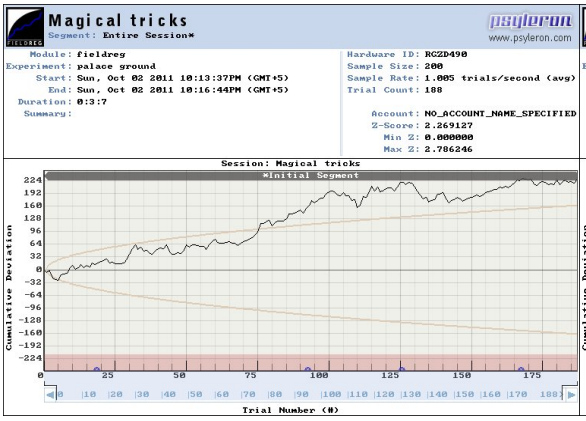


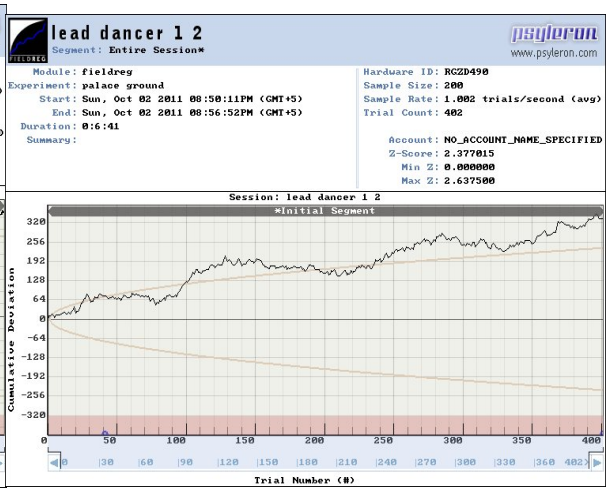
Psyleron Graph: Entire Session of Dance program at Mysore Palace – REG Graph

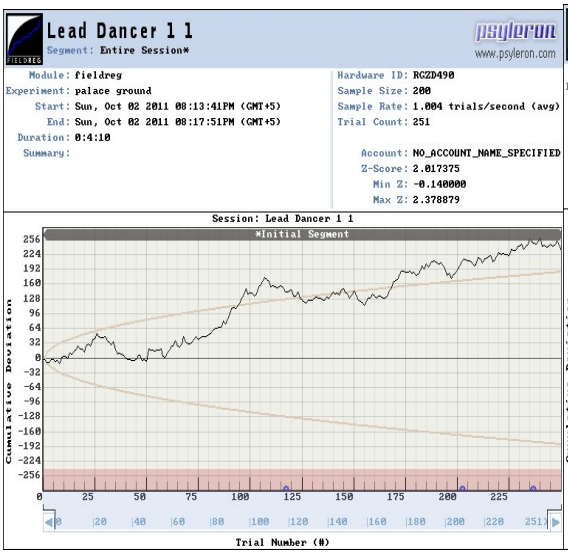
1. SIGNIFICANT DEVIATIONS IN DANCE PROGRAM

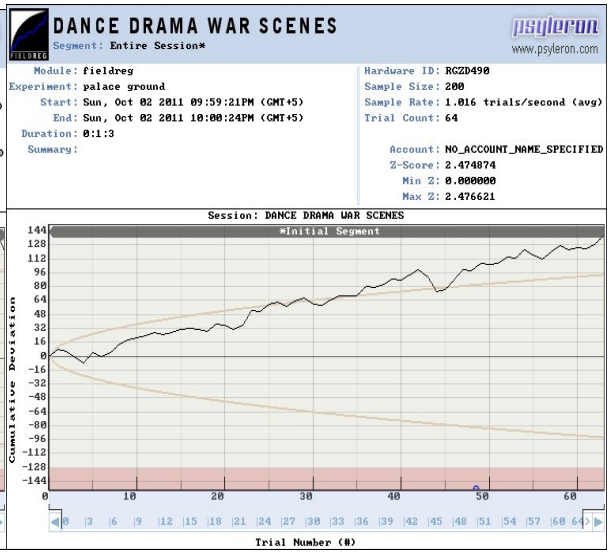









Lead Dancer 1 1
Segment: Entire Session*
psyleron
www.psyleron.com
Module: fieldreg
Experiment: palace ground
Start: Sun, Oct 02 2011 08:13:41PM (GMT+5)
End: Sun, Oct 02 2011 08:17:51PM (GMT+5)
Duration: 0:4:10
Summary:
Hardware ID: RGZD490
Sample Size: 200
Sample Rate: 1.004 trials/second (avg)
Trial Count: 251
Account: NO_ACCOUNT_NAME_SPECIFIED
Z-Score: 2.017375
Min Z: -0.140000
Max Z: 2.378879
Session: Lead Dancer 1 1
*Initial Segment
Cumulative Deviation
Trial Number (#)


DANCE DRAMA WAR SCENES
Segment: Entire Session*
psyleron
www.psyleron.com
Module: fieldreg
Experiment: palace ground
Start: Sun, Oct 02 2011 09:59:21PM (GMT+5)
End: Sun, Oct 02 2011 10:00:24PM (GMT+5)
Duration: 0:1:3
Summary:
Hardware ID: RGZD490
Sample Size: 200
Sample Rate: 1.016 trials/second (avg)
Trial Count: 64
Account: NO_ACCOUNT_NAME_SPECIFIED
Z-Score: 2.474874
Min Z: 0.000000
Max Z: 2.476621
Session: DANCE DRAMA WAR SCENES
*Initial Segment
Cumulative Deviation
Trial Number (#)


Group Dance
Segment: Entire Session*
psyleron
www.psyleron.com
Module: fieldreg
Experiment: palace ground
Start: Sun, Oct 02 2011 08:17:52PM (GMT+5)
End: Sun, Oct 02 2011 08:30:01PM (GMT+5)
Duration: 0:12:9
Summary:
Hardware ID: RGZD490
Sample Size: 200
Sample Rate: 1.001 trials/second (avg)
Trial Count: 730
Account: NO_ACCOUNT_NAME_SPECIFIED
Z-Score: -2.570011
Min Z: -3.122129
Max Z: 0.670820
Session: Group Dance
*Initial Segment
Cumulative Deviation
Trial Number (#)


Crowd chit chatting
Segment: Entire Session*
psyleron
www.psyleron.com
Module: fieldreg
Experiment: palace ground
Start: Sun, Oct 02 2011 07:21:32PM (GMT+5)
End: Sun, Oct 02 2011 07:30:55PM (GMT+5)
Duration: 0:9:23
Summary:
Hardware ID: RGZD490
Sample Size: 200
Sample Rate: 1.002 trials/second (avg)
Trial Count: 564
Account: NO_ACCOUNT_NAME_SPECIFIED
Z-Score: 2.274777
Min Z: 0.000000
Max Z: 2.415454
Session: Crowd chit chatting
*Initial Segment
Cumulative Deviation
Trial Number (#)

7.1.3Torch Light Parade

Plate13: In Torchlight parade event- Performances with Torch Light

Table 11: Schedule of all activities in the torchlight parade and REG event

Data for each torchlight parade program segment

Segment	Torch Light Parade				
	N	∑Z(For reference)	Z_c	P	Es
Full event	**12990**	**216.80**	**1.90**	**0.06***	**0.02**
Predata(Crowd assembling)	815	34.08	1.19	0.23	0.04
Laser lights getting tested	974	-26.02	-0.83	0.41	-0.03
Anchoring	99	11.60	1.17	0.24	0.12
Equestrian shows	2234	32.95	0.70	0.48	0.01
CM &Governor arrival	**773**	**-48.93**	**-1.76**	**0.08***	**-0.06**
Governor Greeting bands	1568	57.42	1.45	0.15	0.04

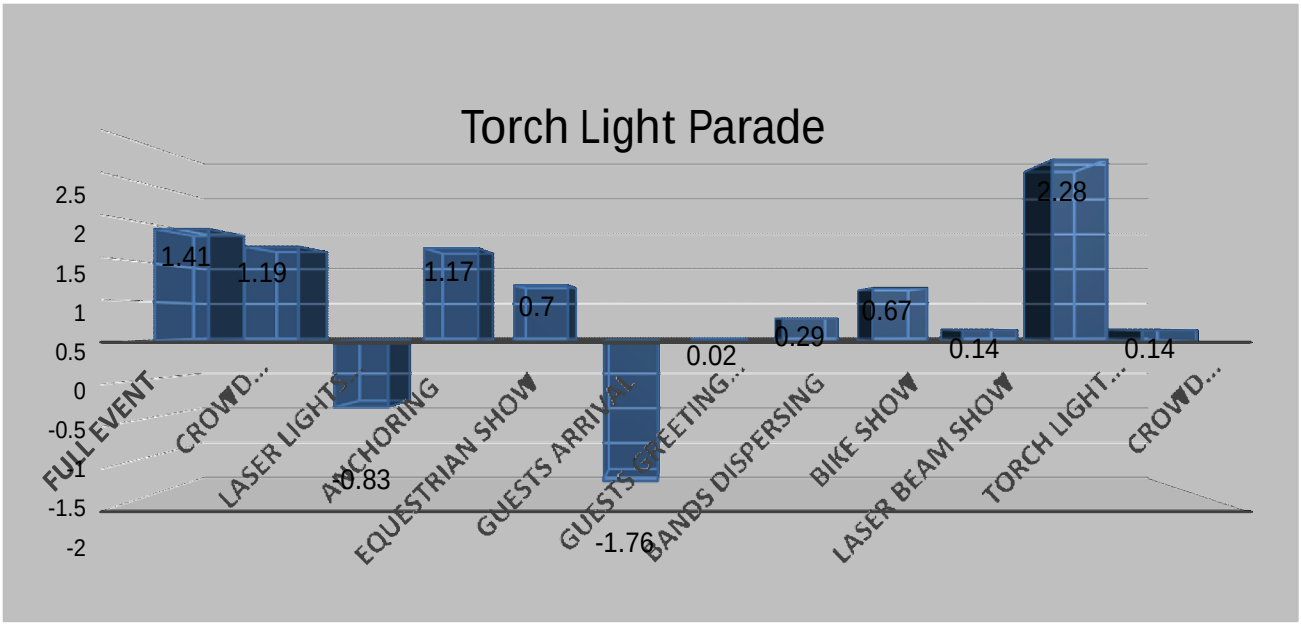
Bands Dispersing	498	6.51	0.29	0.77	0.01
bike race show	1877	29.13	0.67	0.50	0.02
laser Game	1272	5.09	0.14	0.89	0.00
Torch lightshow	**2413**	**112.01**	**2.28**	**0.02****	**0.05**
Post data(crowd dispersing)	467	2.97	0.14	0.89	0.01

The time-stamped epochs, their respective trial counts and statistics are presented in the tables where N =number of REG events, Zc= combined z -score, Es=effect size (Zc/√N; equal to mean REG z), P =probability(2T) of Zc, **significant at $P<0.05$,* trend at$<0.1>0.05$ (2T).

The occurrence of significant REG deviations during periods of torch light parade show (N events=2413, Zc=2.28, $P=0.02$*).REG trend observed during the periods Guests arrival (N events=773, Zc= -1.76, $P=0.08$), and the full event (N events=12990, Zc= *1.90*, $p=0.06$).

No significant deviations observed during pre (assembling) and post session (dispersing)

Graph3: REG data corresponding to epochs of attentiveness in field settings of the Torch Light Parade Program. Values >1.96 relates to the statistically significant anomalous deviations



PsyleronGraph3: Entire Session of Torch Light Parade event at Bannimantap grounds, Mysore

3. SIGNIFICANT DEVIATIONS IN TORCH LIGHT PARADE PROGRAM

7.2 STUDY2

AGNIṢṬOMA SOMAYAJÑA

Plate 14: Agnimanthana

Plate15: Somakrya ritual in the SomaYajña performance

7.2.1Day1

Table.12: Schedule of Day1activitiesin *Agniṣṭoma Somayajña* and REG event data for each *Yajña* segment

	Day 1				
	N	**∑Z(For reference)**	**Z_c**	**P**	**Es**
Full Event-Day 1	**43296**	**-276.77**	**-1.33**	**0.18**	**-0.01**
Preparations (Predata)	4247	-21.64	-0.33	0.74	-0.01
Devotional songs	**1756**	**88.53**	**2.11**	**0.03****	**0.05**
Preparations	157	-27.58	-2.20	0.03**	-0.18
Yajña Saṁkalpā	**14458**	**-293.03**	**-2.44**	**0.01****	**-0.02**
Lunch Break	**2844**	**-117.09**	**-2.20**	**0.03****	**-0.04**
Crowd coming back	1171	10.04	0.29	0.77	0.01
Vedic chanting	217	35.78	2.43	0.02**	0.16
Fire in the 3 *kundas*	**104**	**-22.06**	**-2.16**	**0.03****	**-0.21**
Agnisthāpanā	854	1.83	0.06	0.95	0.00
Āgnipraveñ	1507	-5.23	-0.13	0.90	0.00
Āhavanéya à	832	1.84	0.06	0.95	0.00

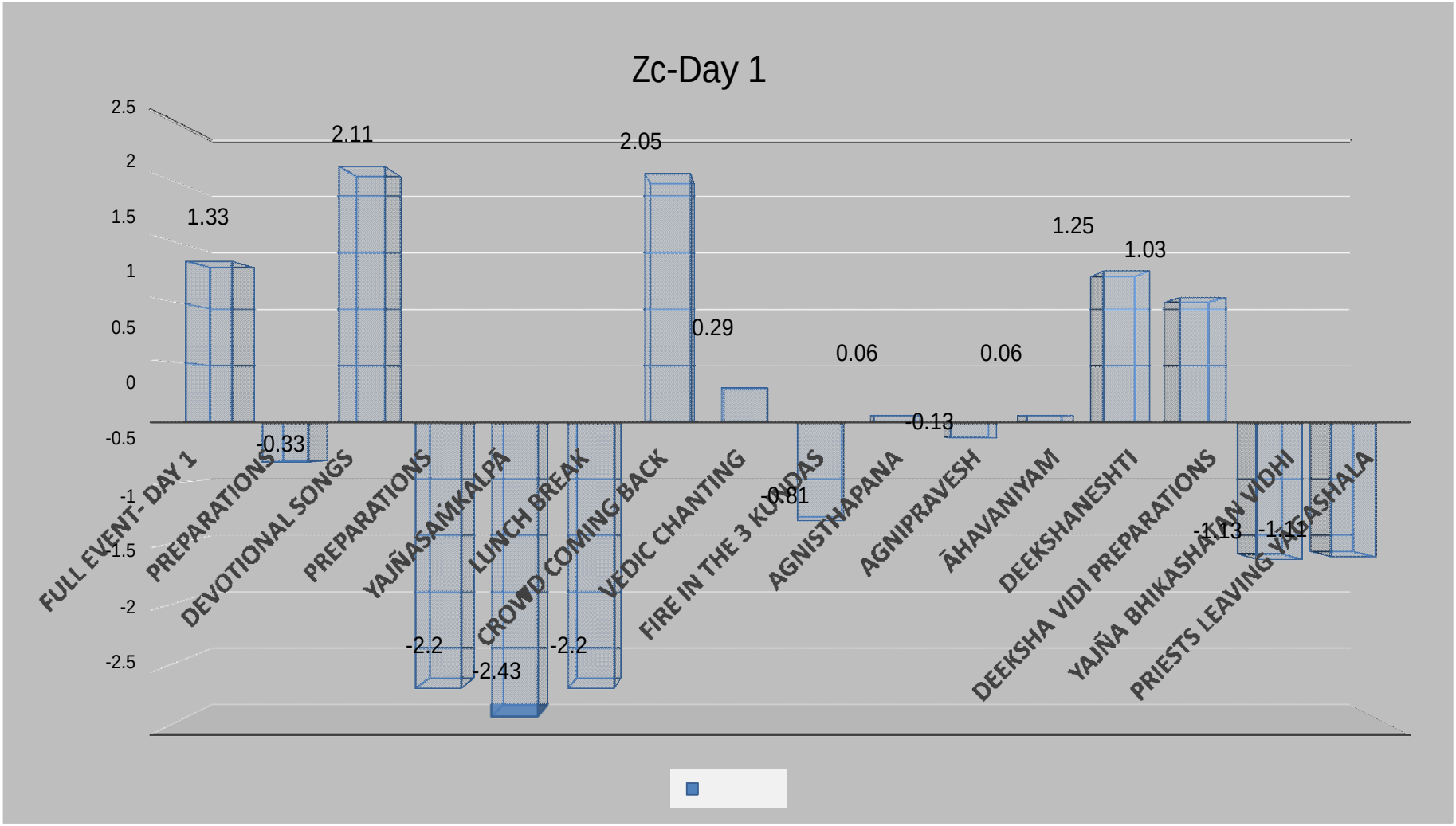
dīkṣāiṣṭi	5961	96.17	1.25	0.21	0.02
dīkṣāvidi preparations	4652	70	1.03	0.30	0.02
Yajña bhikāshātan vidhi	420	-23.2	-1.13	0.26	-0.06
Priests leaving *Yajñaśālā* (Post data)	4116	-71.13	-1.11	0.27	-0.02

The time-stamped epochs, their respective trial counts and statistics are presented in the tables where N= number of REG events, Zc= combined z-score, Es=effect size (Zc/√N; equal to mean REG z), P =probability (2T) of Zc, **significant $P < 0.05$,*trend at<0.1>0.05(2T).

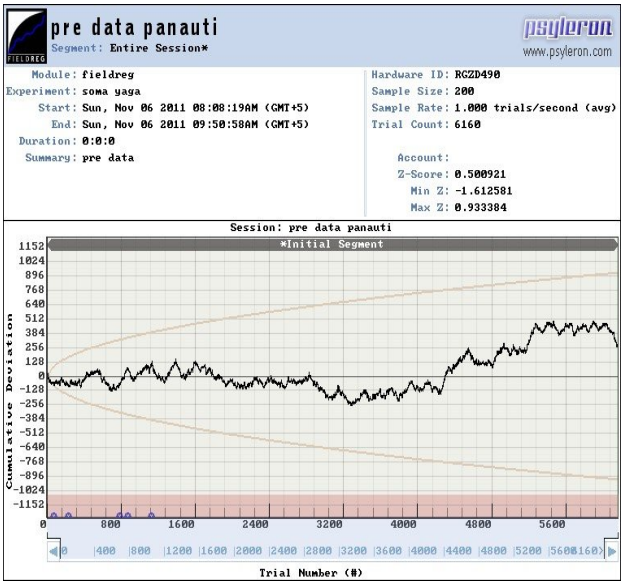
The occurrence of significant REG deviations were observed during the periods of Devotional songs (Nevents=1756,Zc=2.11,*P*=0.03**), Preparations (Nevents=157,Zc=-2.20,*P*=0.03**), *Yajñasaṁkalpā* (Nevents=14458,Zc=-2.44,*P*=0.01**), Lunch Break (Nevents=2844,Zc=-2.20, *P*=0.03**), Vedic chanting (Nevents=217,Zc=2.43,*P*=0.02**),Fire in the *kundas* (Nevents= 104, Zc= -2.16, *P*=0.03**),

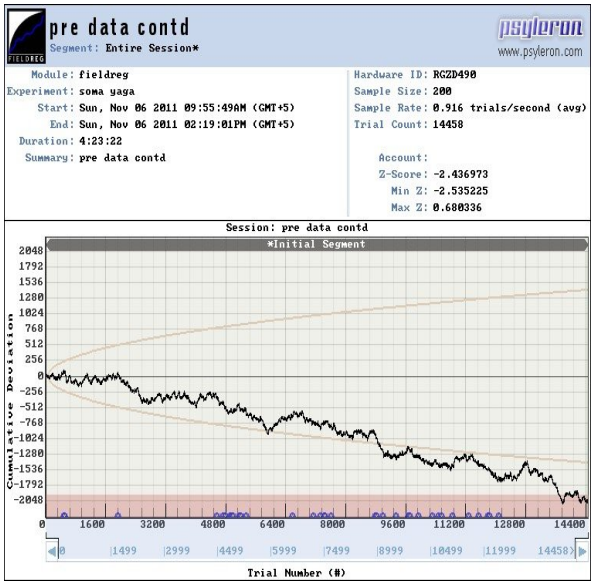
The full event, pre and post events record no significant deviations.

Graph 4: REG data corresponding to epochs of attentiveness in field settings of the Day 1 of *Agniṣṭoma SomaYajña* Values >1.96 relates to the statistically significant anomalous deviations

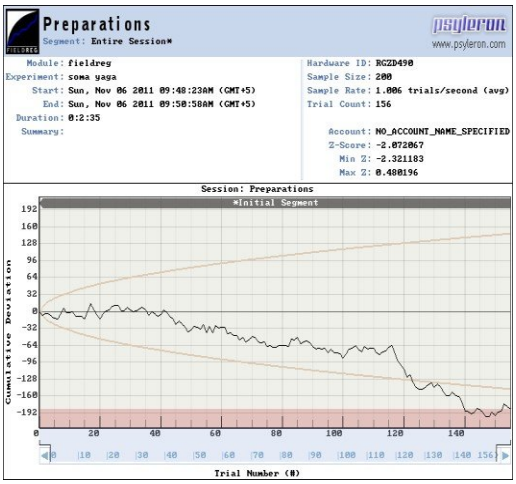


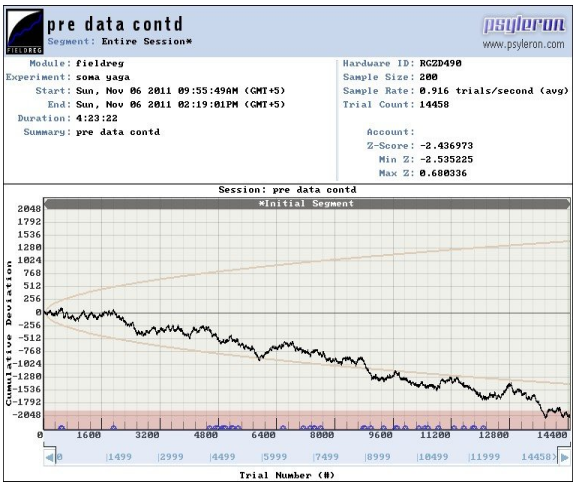
SYLERON Graph3:DAY1SESSION OF*SOMAYAJÑA*

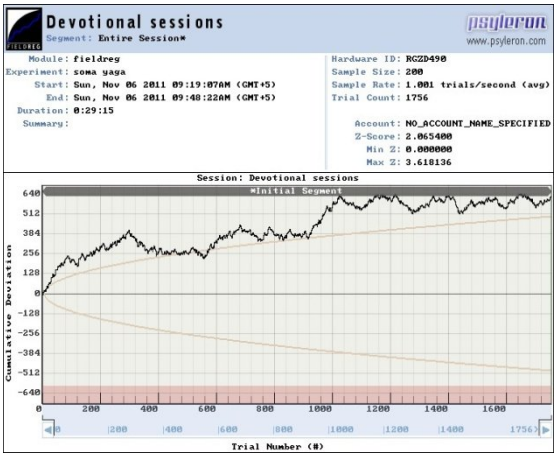


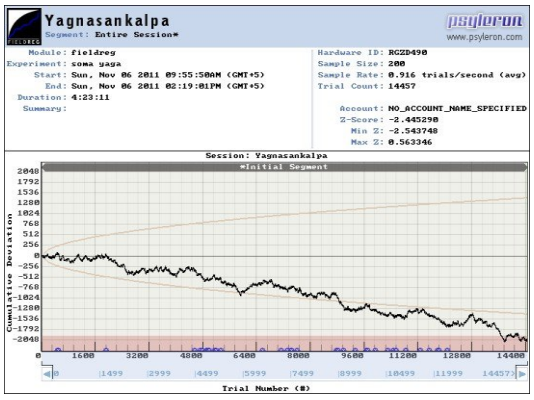


4. SIGNIFICANT DEVIATIONS DURING DAY1 SOMAYAJÑA









7.2.2Day2: Table.13: Schedule of Day2 activities in *Agniṣṭoma SomaYajña*

And REG event data for each *Yajña* segment

	Day 2				
	N	∑Z(For reference)	Z_c	P	Es
Full event- Day2	**47843**	**-345.6**	**-1.58**	**0.11**	**0.01**
Preparations (Predata)	**4526**	**-147.22**	**-2.19**	**0.03****	**-0.03**
Somavalli pūjā	7034	39.32	0.47	0.64	0.01
prāyaṇīyā iṣṭi	**988**	**80.19**	**2.55**	**0.01****	**0.08**
Break	**679**	**-87.96**	**-3.38**	**0.00****	**-0.13**
Somkrya preparations	8510	-50.91	-0.55	0.58	-0.01
Somkrya	4200	44.12	0.68	0.5	0.01
Āthiyeśthī	**2223**	**-100.83**	**-2.14**	**0.03****	**-0.05**
Āthiyeśthī(contd)	5675	-46.95	-0.62	0.54	-0.01
Vedic chanting	**5617**	**-154.29**	**-2.06**	**0.04****	**-0.03**
Cow , goat milk taken	245	6.65	0.42	0.67	0.03
Prathāmaḥ Pravargya	**2346**	**110.03**	**2.27**	**0.02****	**0.05**
Upasat	634	-7.92	-0.31	0.76	-0.01

Subraḥmaṇya vidhī,	565	-27.72	-1.17	0.24	-0.05
Distribution of *Prasādam*	601	14.14	0.58	0.56	0.02
Madhuparkam Preparations	436	9.33	0.45	0.65	0.02
Priests leaving *Yajñaśālā* (Post data)	3564	-25.6	-0.43	0.67	-0.01

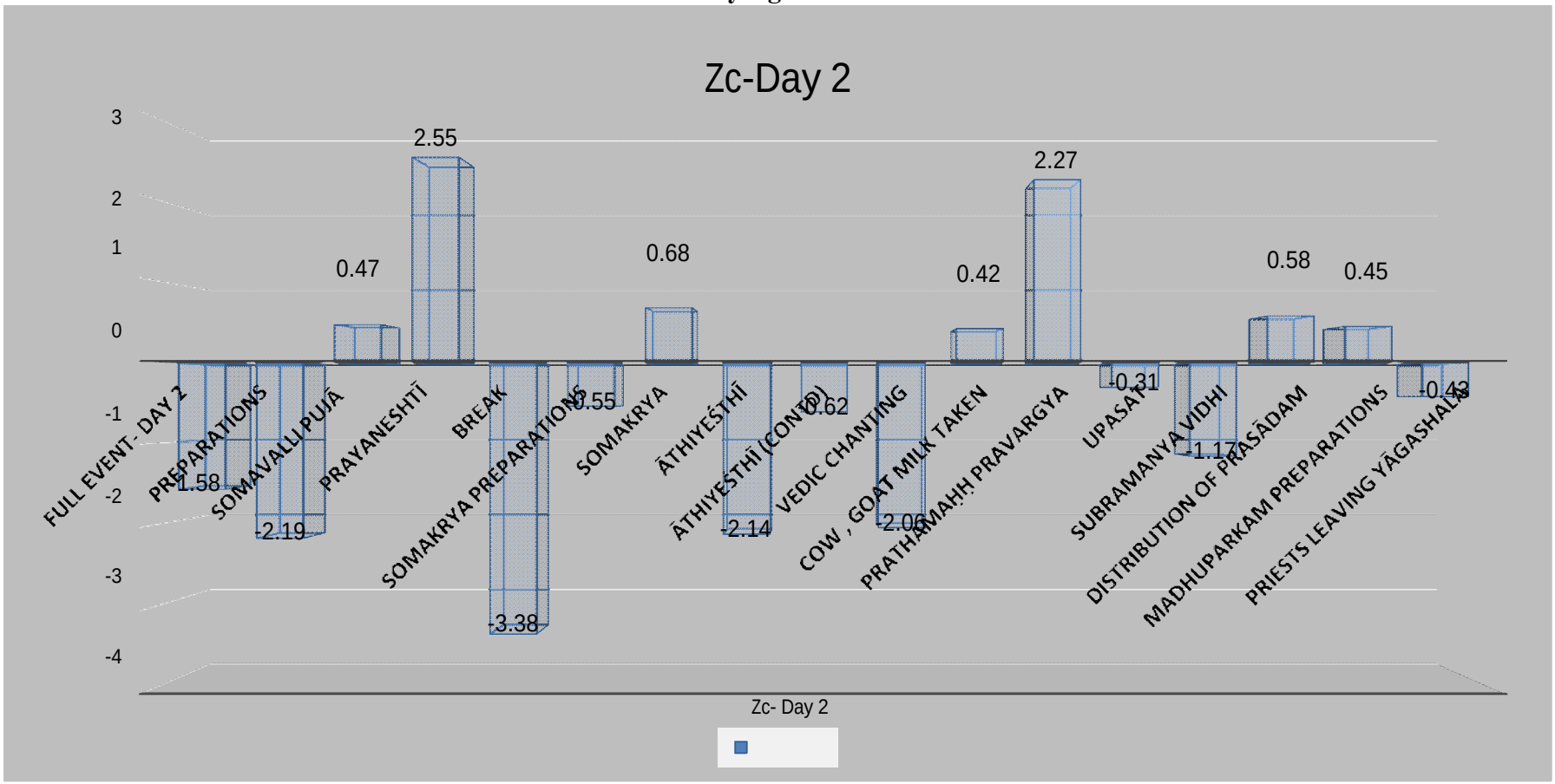
The time-stamped epochs, their respective trial counts and statistics are presented in the tables where N= number of REG events, Zc= combined z-score, Es=effect size (Zc/√N; equal to mean REG z), P =probability (2T) of Zc, **significant at P <0.05,* trend at<0.1>0.05 (2T).

The occurrence of significant REG deviations were observed during the periods of Predata (N events4526, Zc=-2.19, P=0.03**), *prāyaṇīyā iṣṭi* (Nevents=988, Zc=2.55,P=0.01**).,Break (Nevents= 679, Zc= -3.38, P=0.00**), *Āthiyeśthī (*N events=2223, Zc= -2.14, P=0.03**), Vedic chanting (N Events=5617, Zc=-2.06, P=0.04**), *Prathāmaḥ Pravargya* (Nevents=2346, Zc= 2.27, P=0.02**).

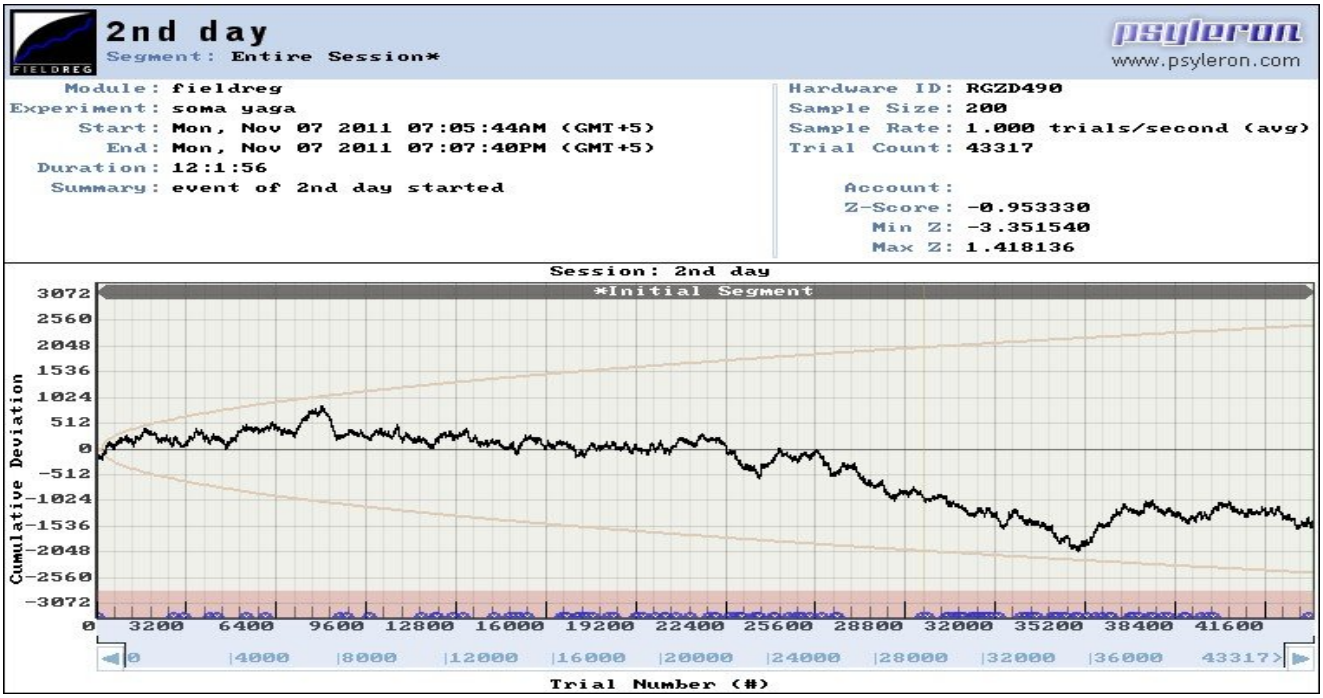
The full event, pre and post events record no significant deviations

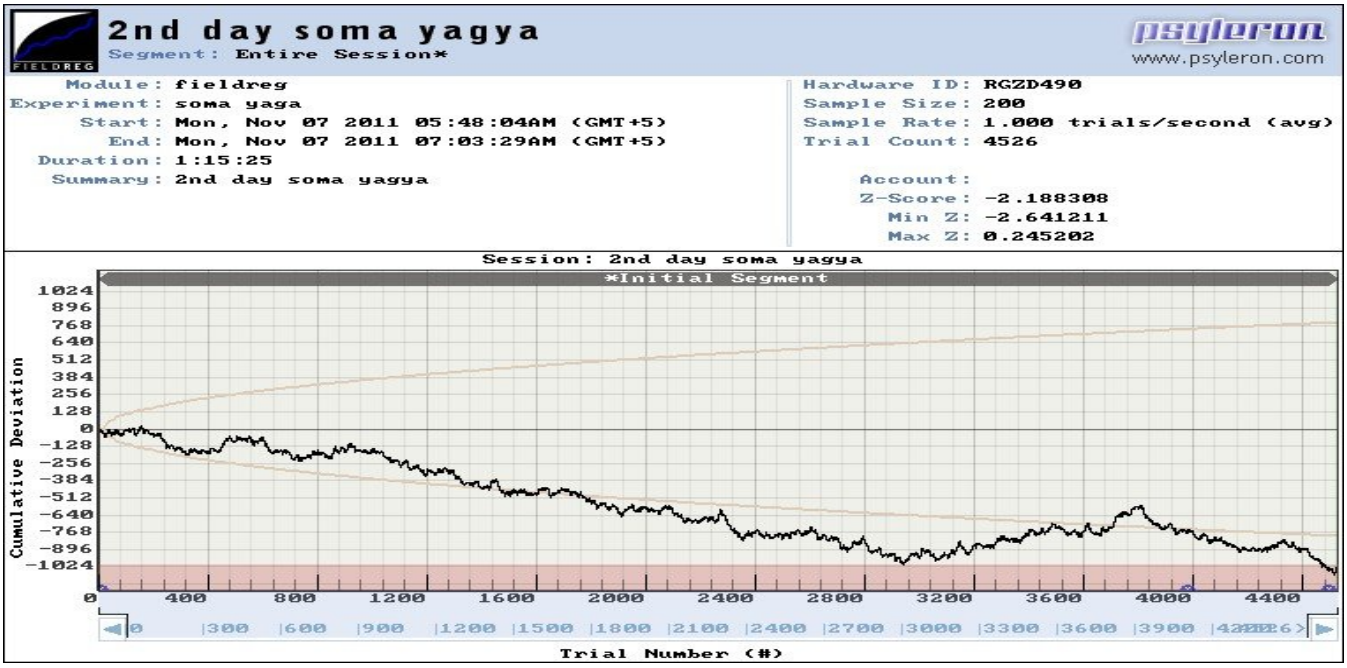
Graph 4(b): REG data corresponding to epochs of attentiveness in field settings of the Day 2 of *Agniṣṭoma SomaYajña.*
Values

>1.96 relates to the statistically significant anomalous deviation.



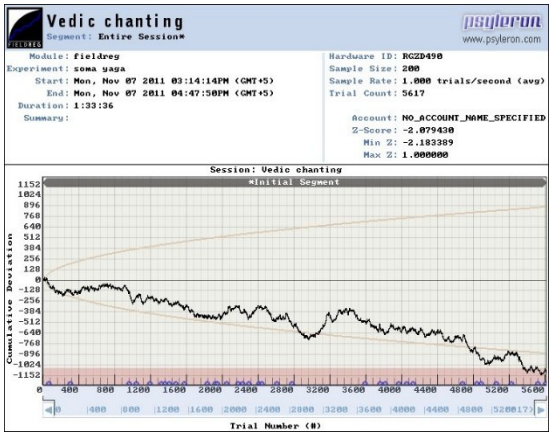
Psyleron Graph 5: DAY2 Session of *Somayajña*

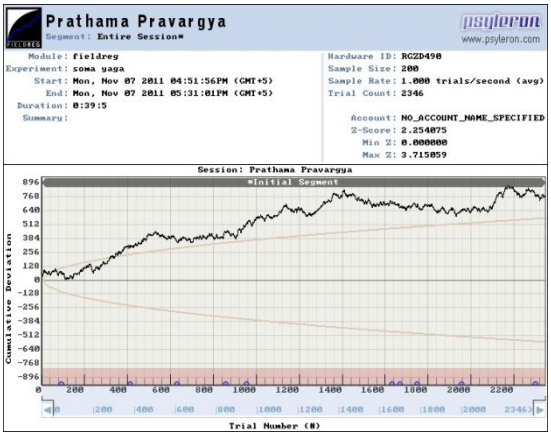


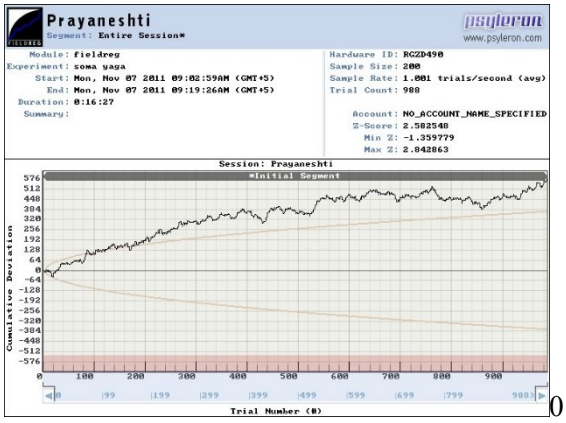


5. SIGNIFICANT DEVIATIONS DURING DAY2

SOMAYAJÑA







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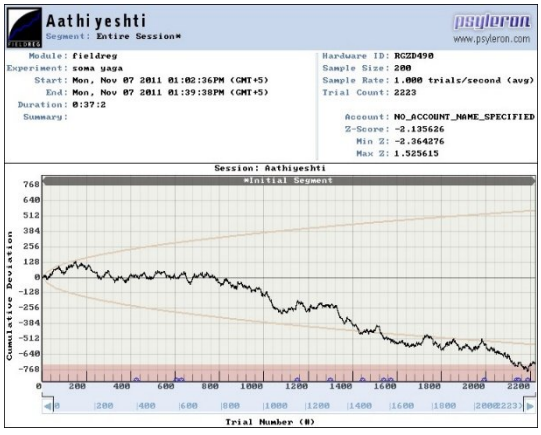
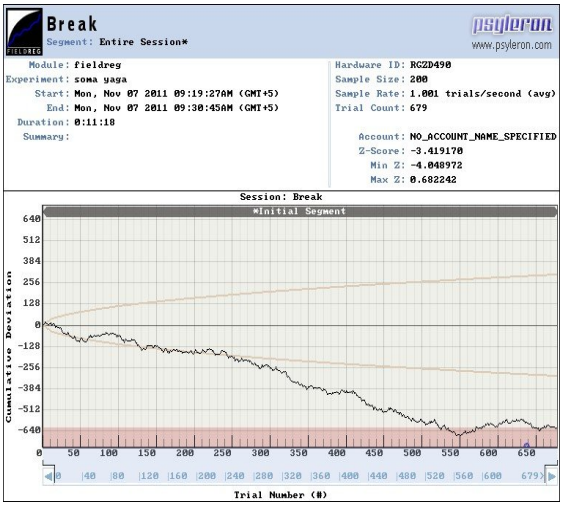
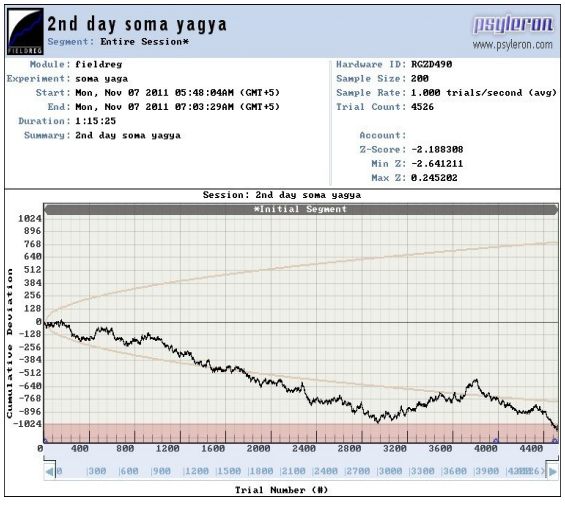






7.2.3Day 3: Table 14: Schedule of Day3 activities in *Agniṣṭoma SomaYajña* And REG event data for each *Yajña* segment

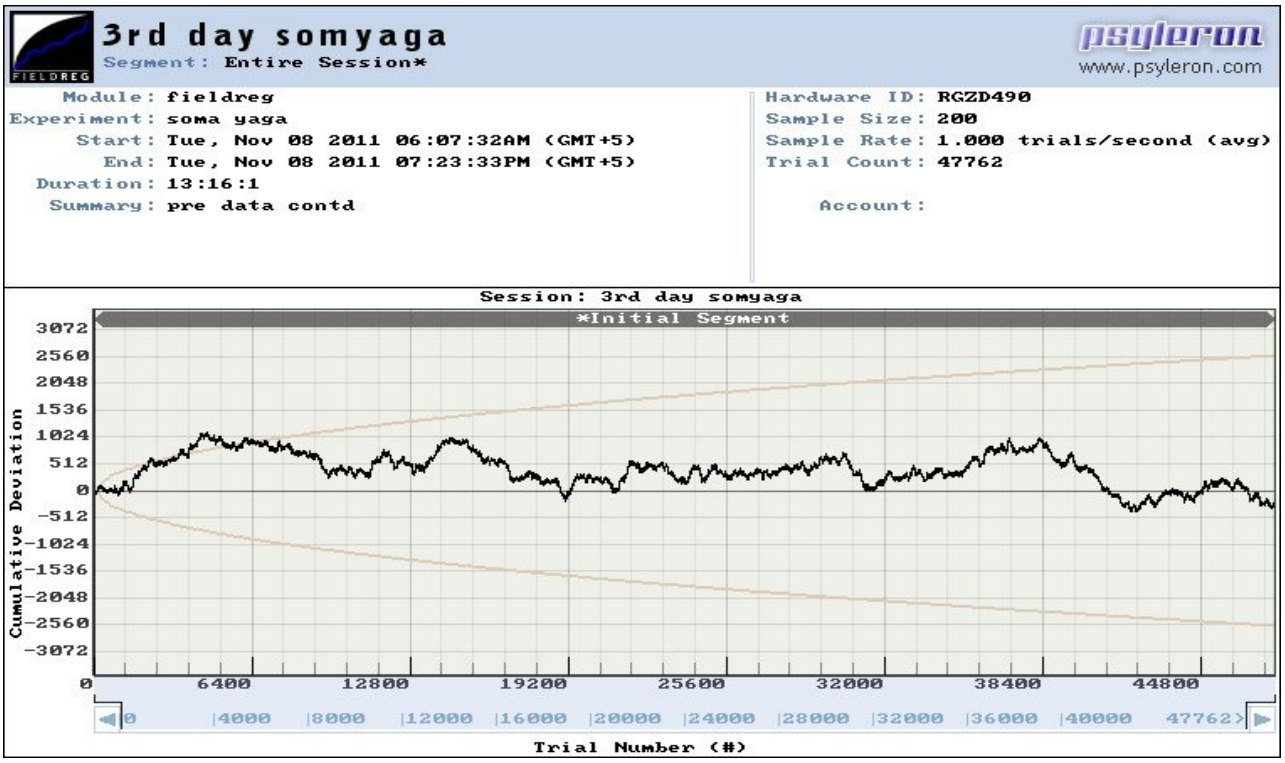
Activity	Nin secs	Sum of Z score	Zc	P	Es
Full Event- Day3	**49682**	**-40.73**	**-0.18**	**0.86**	**-0**
Preparations (Predata)	1920	-8.77	-0.2	0.84	-0
Agnihotra significance and practice (Predata)	1292	20.36	0.57	0.57	0.02
***Vedic* chanting**	**3539**	**119.08**	**2**	**0.05****	**0.03**
2nd *Pravargya*	3061	-16.26	-0.29	0.77	-0.01
Āhavaniyam	**1566**	**-78.77**	**-1.99**	**0.05****	**-0.05**
Subraḥmaṇya	1564	-5.66	-0.14	0.89	-0
Break	**885**	**59.26**	**1.99**	**0.05****	**0.07**
Cleaning and setting the *Mahāvedi*	2652	36.2	0.7	0.48	0.01
Vedi pūjā	**4492**	**-155.7**	**-2.32**	**0.02****	**-0.03**
3rd Pravargya	1836	39.32	0.92	0.36	0.02
Subraḥmaṇya	**817**	**60.95**	**2.13**	**0.03****	**0.07**
Vedi pūjā preparations	8572	13.72	0.15	0.88	0
Vedi Pūjā	**1294**	**-84.29**	**-2.34**	**0.02****	**-0.07**
Couples doing *Vedi pūjā*	3244	36.06	0.63	0.53	0.01
Break	2561	56.29	1.11	0.27	0.02
4th *Pravargya* Preparations	793	33.52	1.19	0.23	0.04
4thPravargyaSubraḥmaṇya*and *Madhuparkam	**5036**	**-149.34**	**-2.1**	**0.04****	**-0.03**
Priests leaving *Yajñaśālā* (Post data)	4558	-16.69	0.25	0.8	-0

The time-stamped epochs, their respective trial counts and statistics are presented in the tables where N= number of REG events, Zc= combined z-score, Es=effect size (Zc/√N; equal to mean REG z), P=probability (2T) of Zc, **significant < 0.05,*trend at<0.1>0.05(2T).

The occurrence of significant REG deviations were observed during the periods of Vedic chanting(N events=3539,Zc= 2,*P*=0.05**), *Āhavaniyam* (Nevents=1566,Zc=-1.99, *P*=0.05**)., Break(N events=885,Zc= 1.99,*P*=0.05**), *Vedi pūjā (*Nevents=4492,Zc=-2.32, *P*=0.02**), *Subraḥmaṇya* (N events=817,Zc= 2.13,*P*=0.03**), *Vedi Pūjā* (Nevents=1294,Zc= -2.34 , *P*=0.02**),*4th Pravargya Subraḥmaṇya* and *Madhuparkam* (Nevents=5036,Zc= -2.1 , *P*=0.04**).

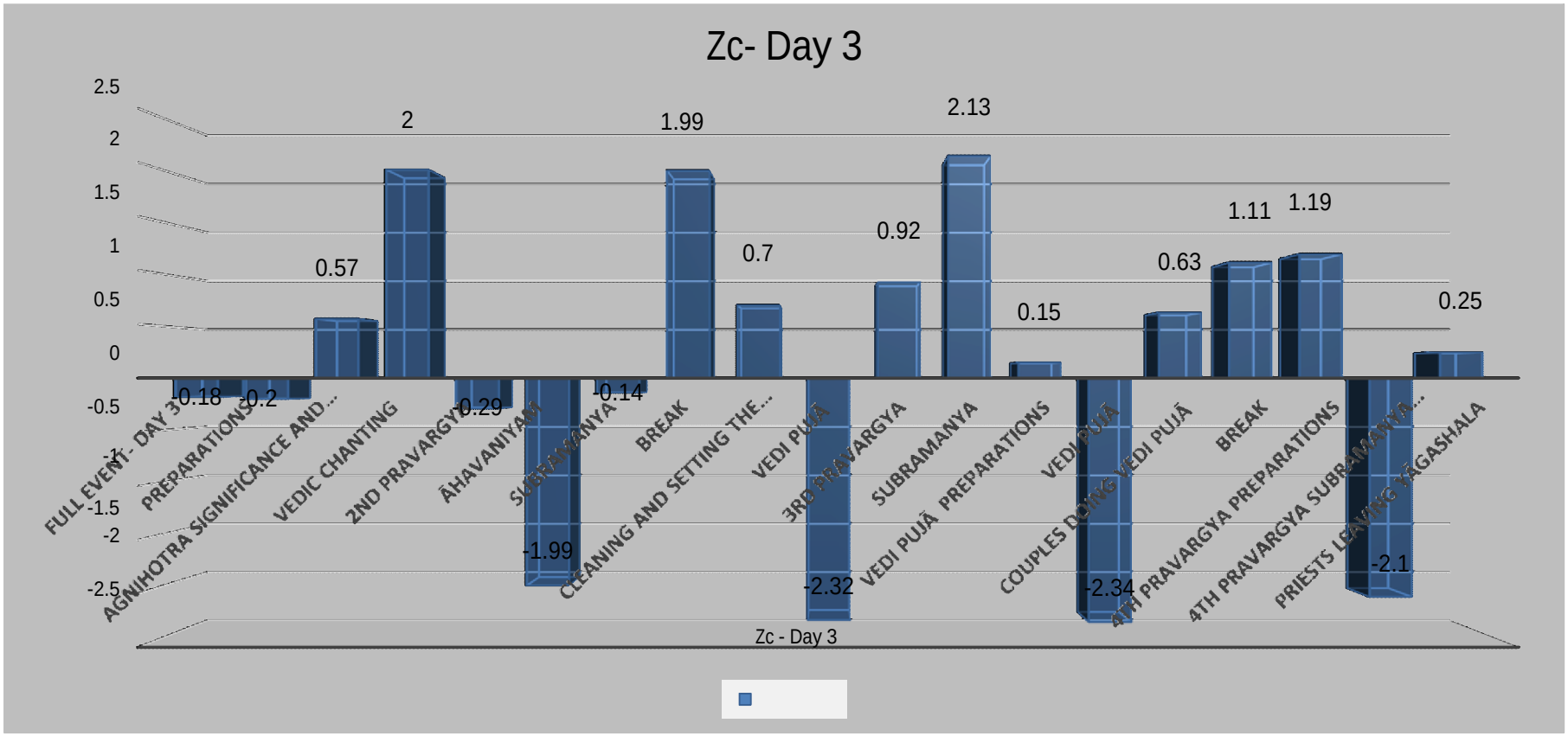
The full event, pre and post events record no significant deviations.

Psyleron Graph6: Entire SessionofDAY3

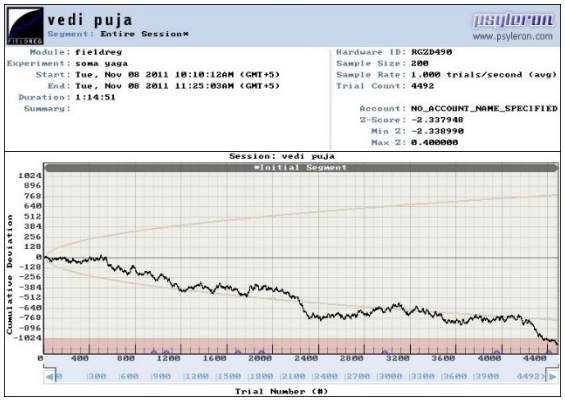


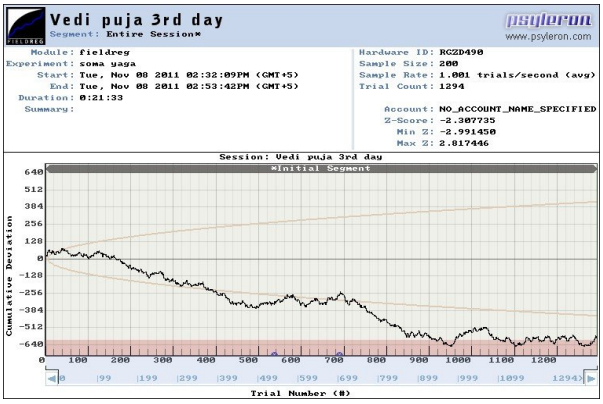
Graph4(c): REG data corresponding to epochs of attentiveness in field settings of the Day3 of *Agniṣṭoma SomaYajña*. Values>1.96

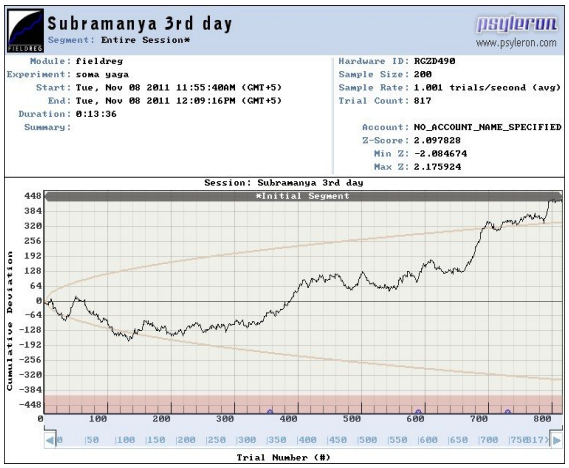
Relates to the statistically significant anomalous deviations

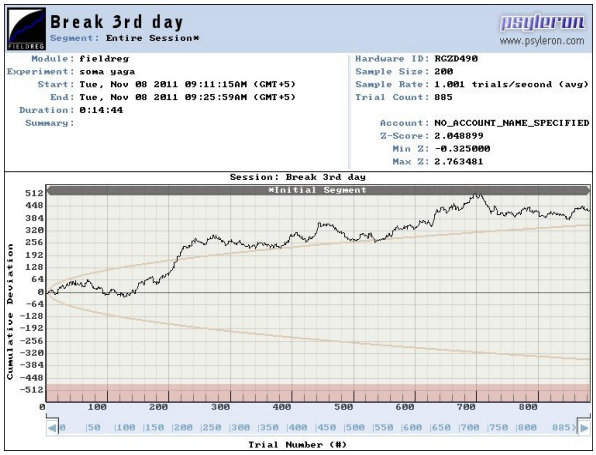


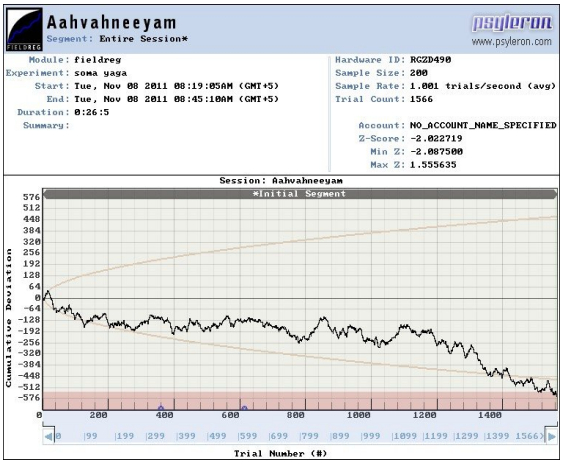
6. SIGNIFICANT DEVIATIONS DURING DAY3 SOMAYAJÑA

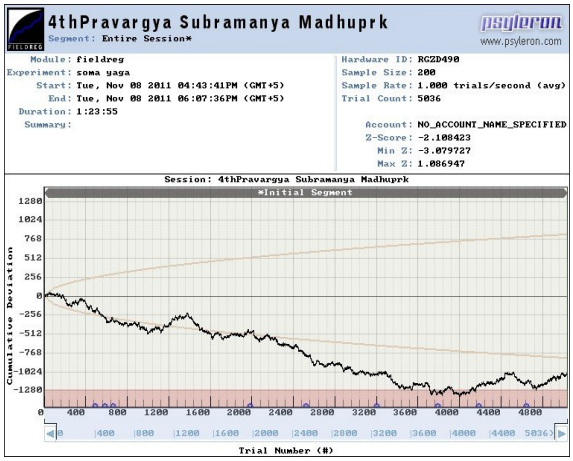


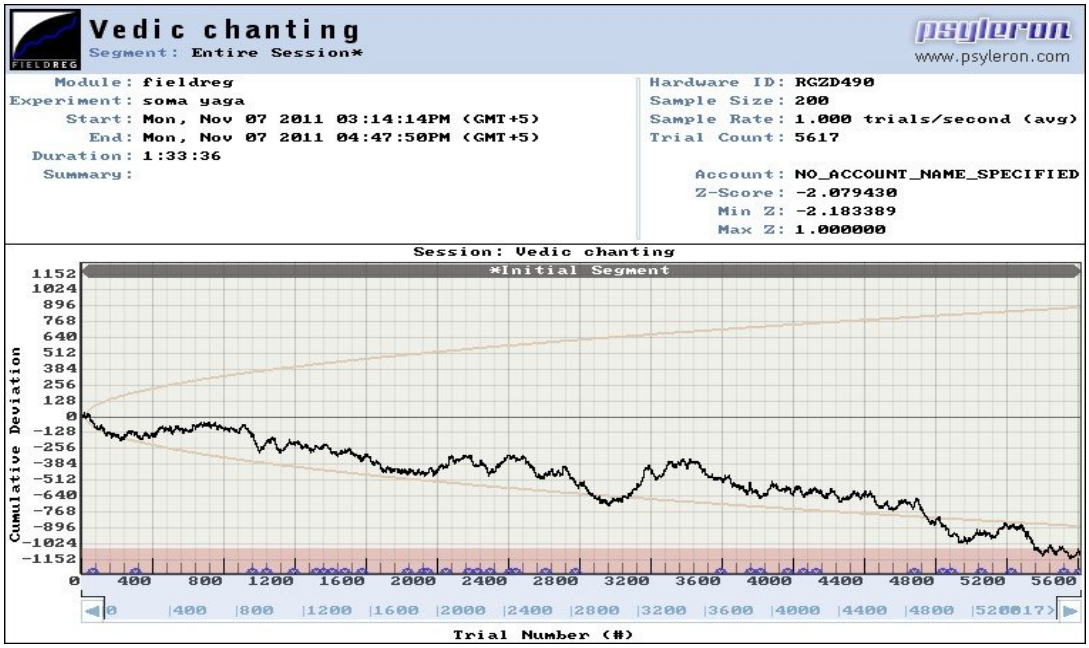












7.2.4Day4

Table.15. Schedule of Day4 activities in *Agniṣṭoma Somayajña* and REG event

Data for each *Yajña* segment

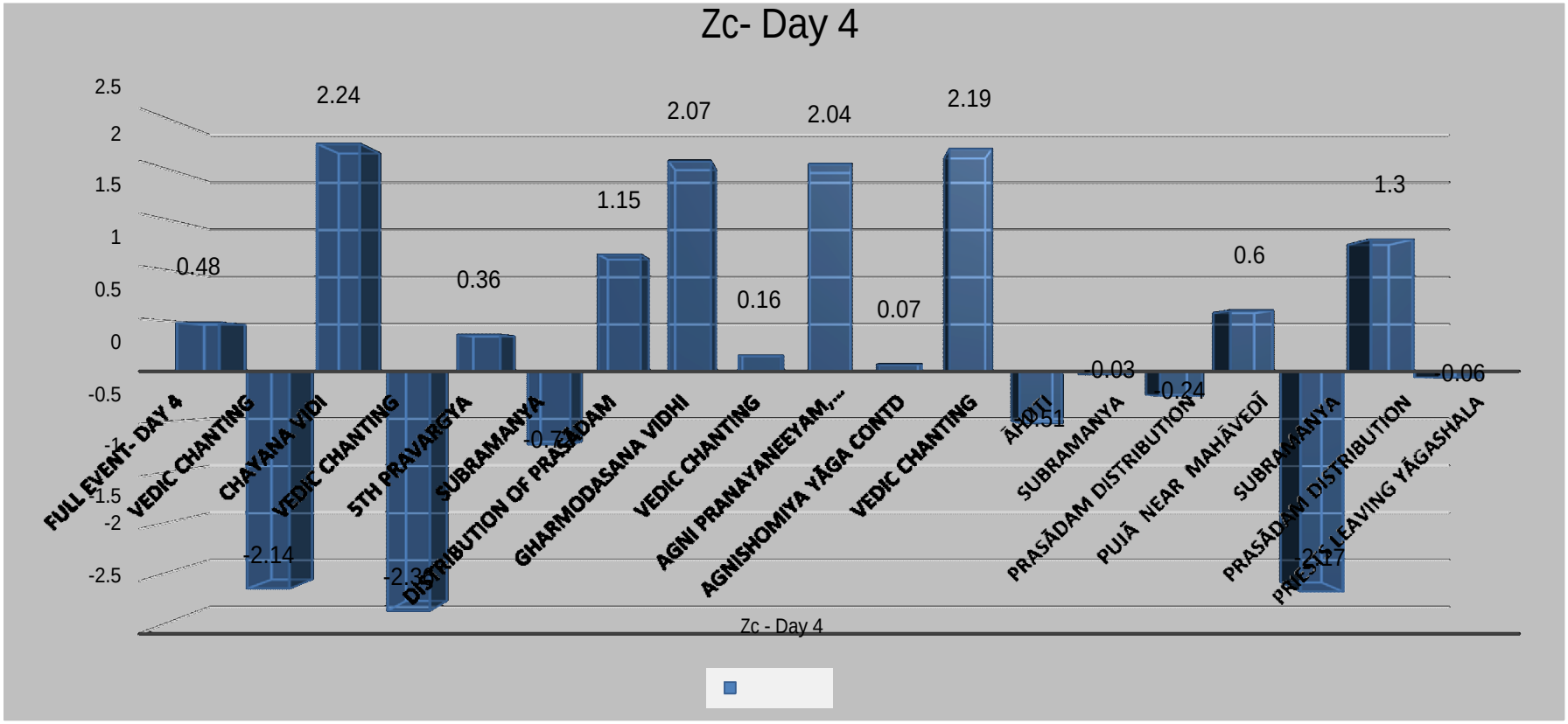
	Day4				
Activity	**Nin secs**	**Sum of Z Score**	**Zc**	**P**	**Es**
Full Event-Day 4	**46070**	**103.8**	0.48	**0.63**	0.00
Vedic chanting	**1970**	**-95.18**	**-2.14**	**0.03****	-0.05
Cayana Vidi	**1820**	**95.74**	**2.24**	**0.03****	0.05
Vedic chanting	**1212**	**-82.02**	**-2.36**	**0.02****	-0.07
5th *Pravargya*	3949	22.34	0.36	0.72	0.01
Subraḥmaṇya	674	-18.67	-0.72	0.47	-0.03

Distribution of *Prasādam*	681	30.12	1.15	0.25	0.04
***Gharmodvāsanam vidhī*,**	**2805**	**-109.88**	**-2.07**	**0.04****	-0.04
Vedic chanting	2500	7.92	0.16	0.87	0.00
Agni Praṇāyaṇīyām, Agniśomiya Yajña* and *Audhambhari pūjā	**10913**	**212.84**	**2.04**	**0.04****	0.02
Agniśomiya Yajña contd	1324	2.69	0.07	0.94	0.00
***Vedic* chanting**	**1276**	**78.06**	**2.19**	**0.03****	0.06
Āhuti	1418	-19.09	-0.51	0.61	-0.01
Subraḥmaṇya	1465	-1.13	-0.03	0.98	0.00
Prasādam Distribution	156	-2.97	-0.24	0.81	-0.02
Pūjā near *Mahāvedi*	2618	30.55	0.60	0.55	0.01
Subraḥmaṇya	**695**	**-57.13**	**-2.17**	**0.03****	-0.08
Prasādam Distribution	141	15.41	1.30	0.19	0.11
Priests leaving *Yajñaśālā (*Post	10453	-5.8	-0.06	0.95	0.00

The time-stamped epochs, their respective trial counts and statistics are presented in the tables where N =number of REG events, Zc= combined z-score, es=effect size (zc/√N; equal to mean REG z), P =probability(2T)of Zc,**significant at $P < 0.05$,*trend at<0.1>0.05(2T).

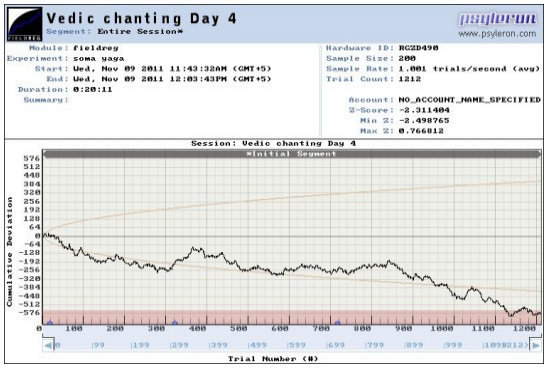
The occurrence of significant REG deviations were observed during the periods of Vedic chanting (Nevents=1970, Zc=2.14, *P*=0.03**), (Nevents=1212, Zc=2.36, *p*=0.02**), (Nevents=1276, Zc=2.19, *P*=0.03**), *cayanavidhi* (Nevents=1820, Zc=2.24, *P*=0.03**)., *Gharmodvaasanamvidhi* (NEvents=2805, Zc=2.07.99, *P*=0.04**), *AgniPraṇāyaṇīyām, Agniśomiya Yajña* and *Audhambharipūjā (*N events=10913, Zc= 2.04, *P*=0.04**), *Subraḥmaṇya* (Nevents=695, Zc=-2.17, *P*=0.03**).**The full event, pre and post events record no significant deviation**

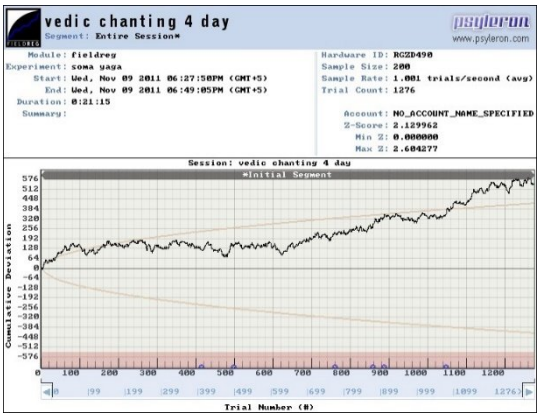
Graph7: REG data corresponding to epochs of attentiveness in field settings of the Day 4 of *Agniṣṭoma SomaYajña*. Values>1.96 relates to the statistically significant anomalous deviation.

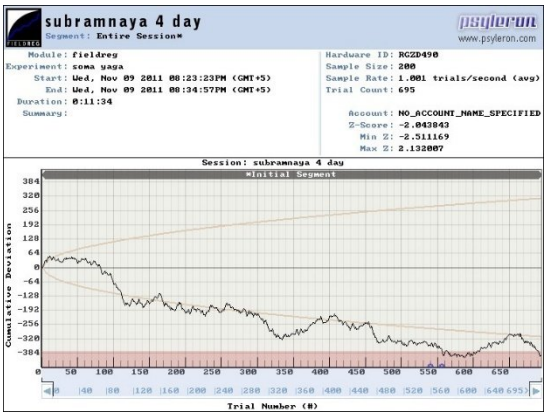


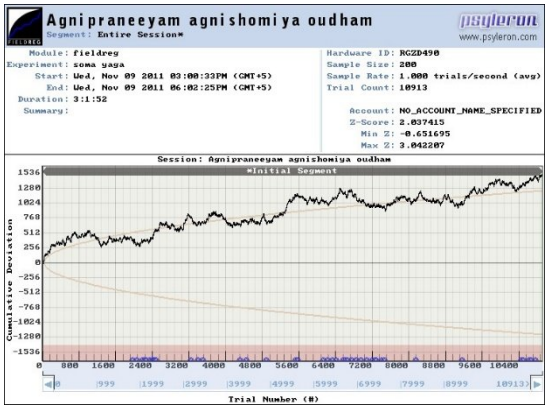
Psyleron Graph 7: Day4

7.SIGNIFICANTDEVIATIONSDURINGDAY4 SOMAYAJÑA









7.2.5Day5 **Table.16: Schedule of Day5 activities in *Agniṣṭoma Somayajña* and REG event data for each *Yajña* segment.**

	Day5				
Activity	N	∑Z (For reference)	Z_c	P	Es
Full Event- Day5	**61137**	**-114.28**	**-0.46**	**0.65**	**0**
Predata	2384	-29.56	-0.61	0.54	-0.01
***Vedic* chanting**	**2202**	**-92.91**	**-1.98**	**0.05****	**-0.04**
Prātah Savanam	4769	21.35	0.31	0.76	0
***Soma* pressing**	**1834**	**-90.37**	**-2.11**	**0.03****	**-0.05**
Somarasā stored in wooden vessels	1488	40.59	1.05	0.88	0.03
Soma āhuti & S*omarasā* taken by the priest	3586	-91.08	-1.52	0.13	-0.03
Vedic chanting	**1040**	**77.78**	**2.41**	**0.02****	**0.07**
Somarasā in Vedi	4085	20.36	0.32	0.7	0
High fire in *Mahāvedi*	**902**	**70**	**2.33**	**0.02****	**0.08**
***Soma āhuti* & S*omarasā* taken by the priest**	**3109**	**-124.17**	**-2.23**	**0.03****	**-0.04**
Break	**1762**	**84.71**	**2.02**	**0.04****	**0.05**
localities doing *pradakñiëä*	**2072**	**-93.76**	**-2.06**	**0.04****	**-0.05**
Preparations for *Madhyānā Savanam*	**4300**	**141.56**	**2.16**	**0.03****	**0.03**

Madhyānā Savanam	**1867**	**-82.73**	**-1.91**	**0.06***	**-0.04**
Vedic chanting	**1503**	**86.83**	**2.24**	**0.03****	**0.06**
***Soma āhuti* &*Somarasā* taken by the priest**	**5752**	**-178.47**	**-2.35**	**0.02****	**-0.03**
Vedic chanting	**1088**	**79.62**	**2.41**	**0.02****	**0.07**
Tṛtīyā Savanam	3315	-58.97	-1.02	0.31	-0.02
***Soma* pressing**	**1297**	**69.3**	**1.92**	**0.05***	**0.05**
High fire of *Mahāvedi*	**1968**	**-76.37**	**-1.72**	**0.09***	**-0.04**
***Soma āhuti* & *Somarasā* taken by the priest**	**2540**	**100.55**	**2.00**	**0.05****	**0.04**
Yajñanīyam stotra	4767	-43.27	-0.63	0.53	-0.01
Priests leaving *Yajñaśālā (Post data)*	3507	54.73	0.92	0.36	0.02

The time-stamped epochs, their respective trial counts and statistics are presented in the tables where N = number of REG events, Zc= combined z-score, Es= effect size(zc/√N; equal to mean REG z),P =probability (2T) of Zc,***significantat *P* <0.05,*trend at<0.1>0.05(2T)

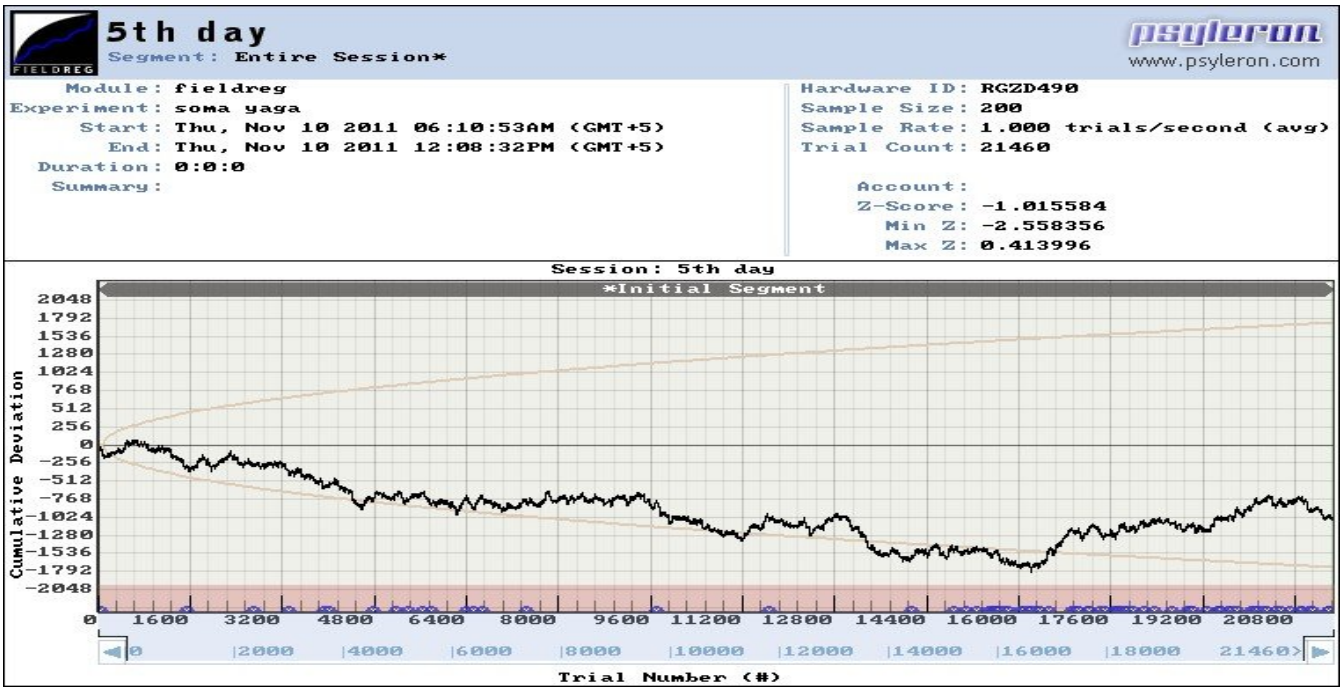
The occurrence of significant REG deviations were observed during the periods of *Vedic* chanting (N events=2202, Zc=1.98*P*=0.05**), (Nevents=1040, Zc=2.41,*P*=0.02**) (Nevents=1503, Zc=2.24, *P*0.03**), (Nevents=1088, Zc=2.41, *P*=0.02**), *Soma* Pressing (PS) (Nevents=1834, Zc=-2.11, *P*=0.03**), High fire in *Vedi* (Nevents=902, Zc=2.33, *P*= 0.02**), *Somaāhuti* & S*omarasā* taken by the

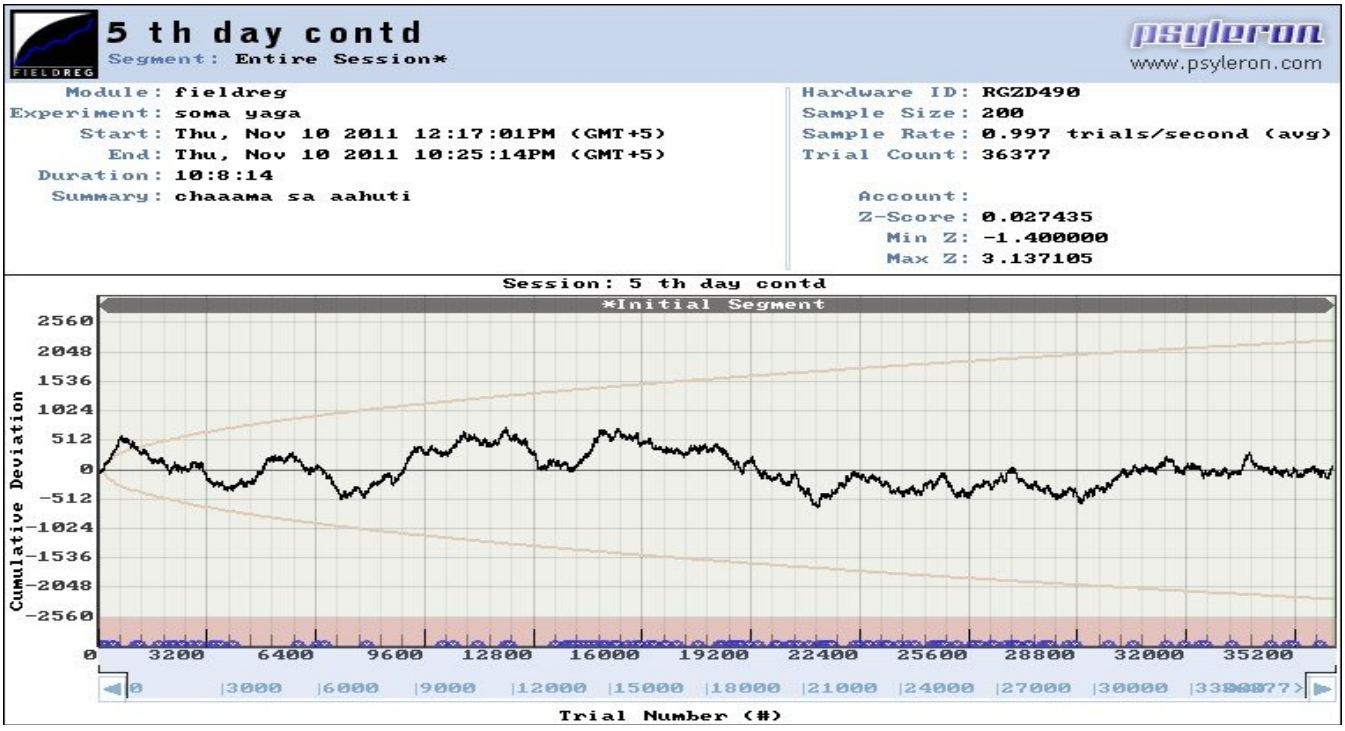
priest (PS) (Nevents=3109, Zc=-2.23, *P*=0.03**), (MS)(N events=5752, Zc=-2.35, *P*=0.02**), (TS) (Nevents=2540, Zc= 2,*P* =0.05**). (PS= *Prātah Savanam, MS=Madhyānā Savanam, TS= Tṛtīyā Savanam). Break* (Nevents=1762, Zc=2.02,*P*=0.04**)., localitiesdoing*pradakñiëä* (Nevents=2072,Zc=-2.06, *P* =0.04**), Preparations for *Madhyānā Savanam (*Nevents=4300, Zc= 2.16, *P* =0.03**),

REG trend observed during *Madhyānā Savanam* (Nevents=1867,Zc=-1.91,*P*=0.06**), High fire of *Mahāvedi* (Nevents=1968, Zc= -1.72, *P*=0.09*). Soma Pressing (Nevents=1297, Zc=1.92, *P*=0.05).

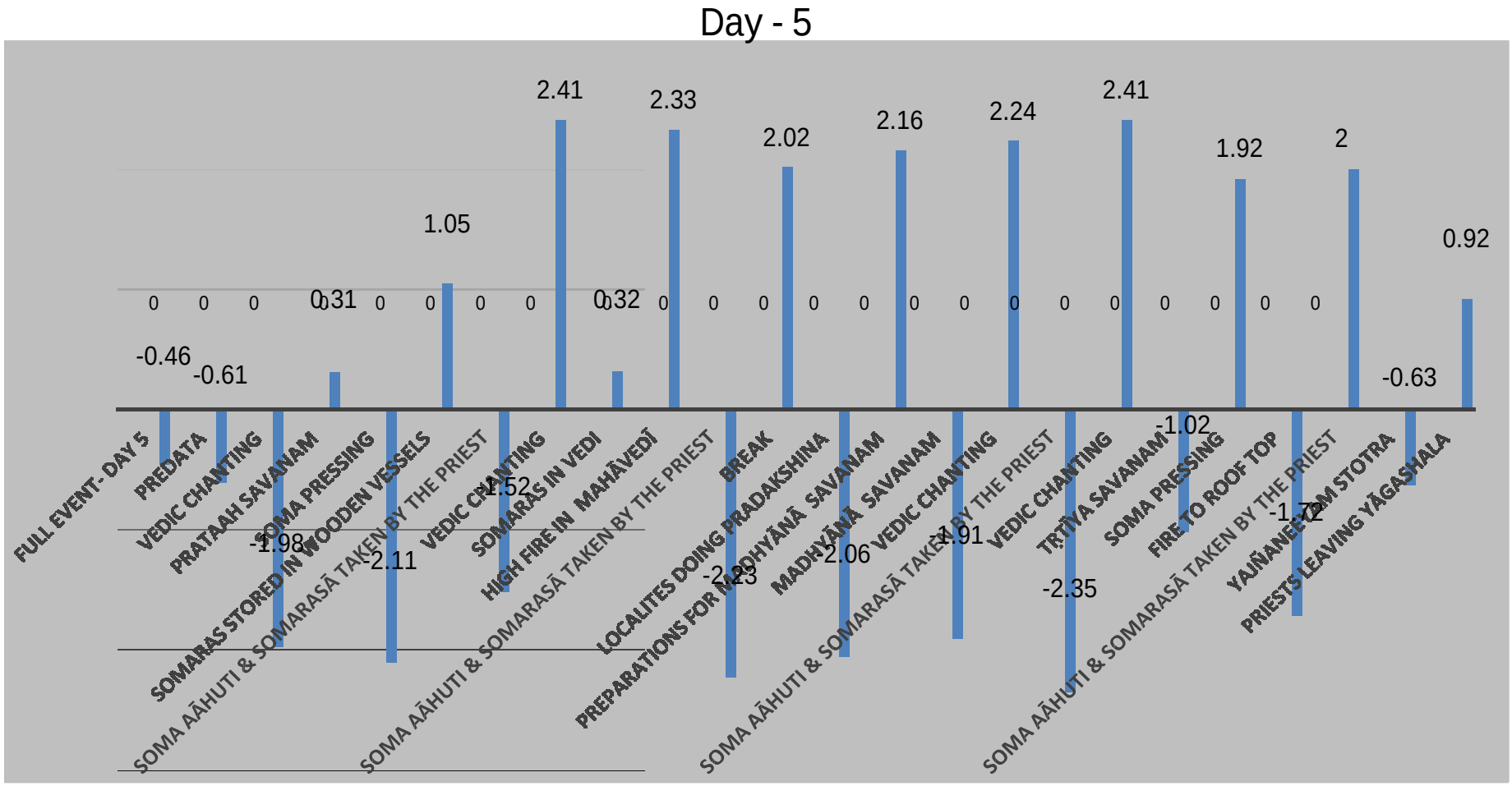
The full event, pre and post events record no significant deviations

Psyleron Graph8: Day5

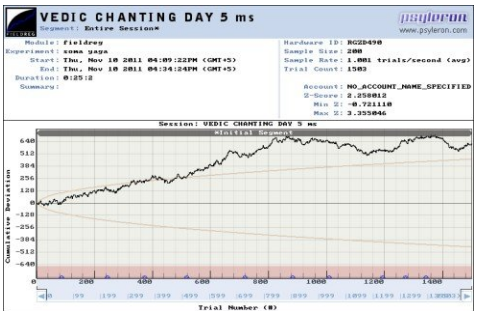


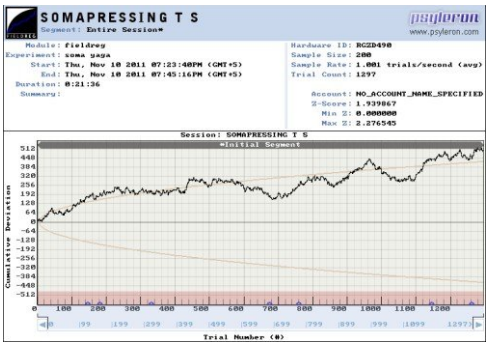


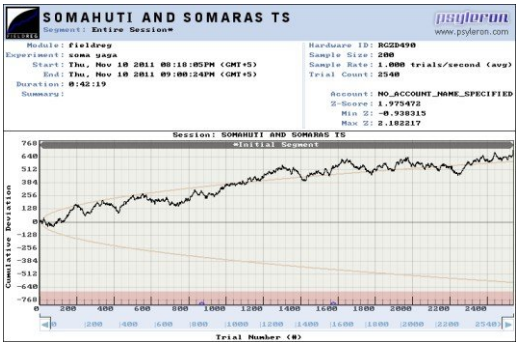
Graph8: REG data corresponding to epochs of attentiveness in field settings of the Day5 of *Agniṣṭoma Soma Yajña*. Values >1.96 relates to the statistically significant anomalous deviations

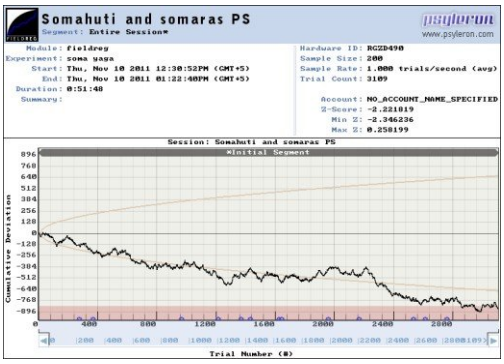


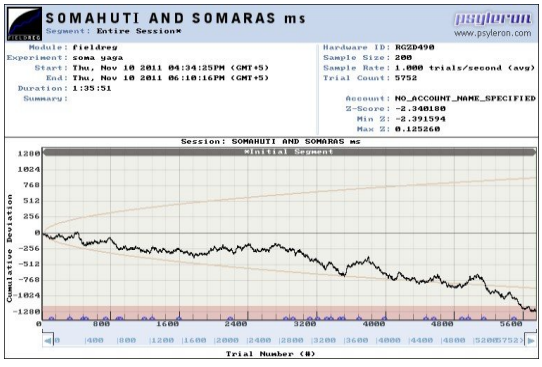
8. SIGNIFICANT DEVIATIONS DURING DAY5 SOMAYAJÑA

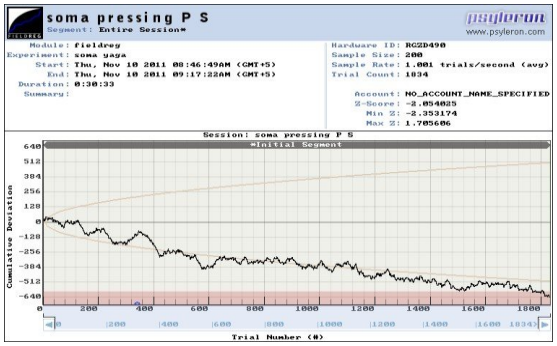


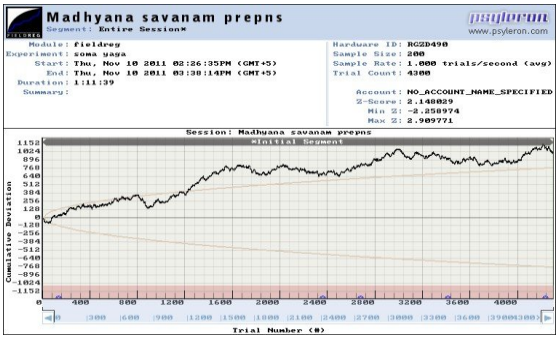


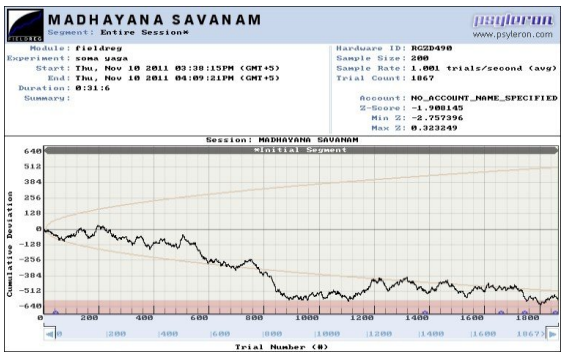


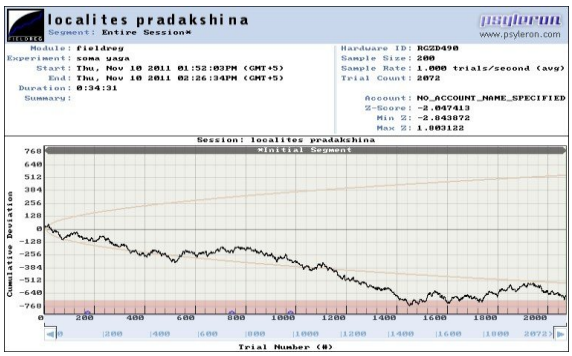


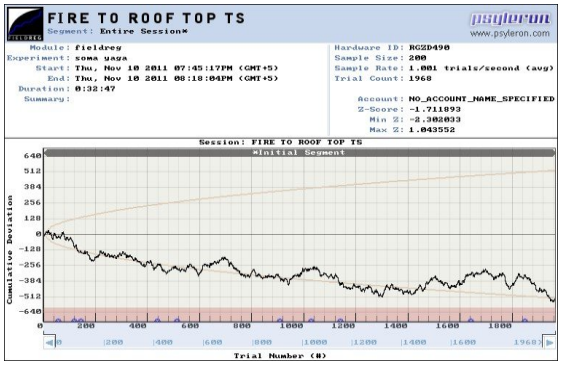


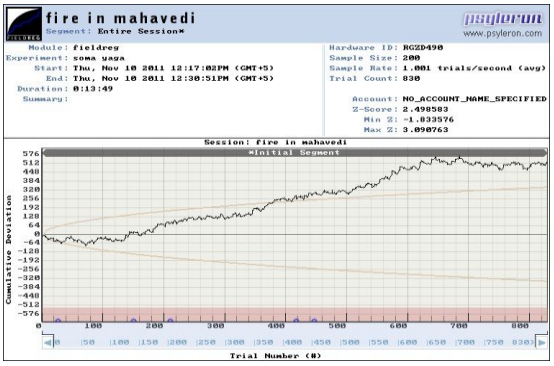

soma pressing P S
Segment: Entire Session*
psyleron
www.psyleron.com
Module: fieldreg
Experiment: soma yaga
Start: Thu, Nov 10 2011 08:46:49AM (GMT+5)
End: Thu, Nov 10 2011 09:17:22AM (GMT+5)
Duration: 0:30:33
Summary:
Hardware ID: RGZD490
Sample Size: 200
Sample Rate: 1.001 trials/second (avg)
Trial Count: 1834
Account: NO_ACCOUNT_NAME_SPECIFIED
Z-Score: -2.054825
Min Z: -2.353174
Max Z: 1.705606
Session: soma pressing P S
*Initial Segment
Cumulative Deviation
Trial Number (#)


Madhyana savanam prepns
Segment: Entire Session*
psyleron
www.psyleron.com
Module: fieldreg
Experiment: soma yaga
Start: Thu, Nov 10 2011 02:26:35PM (GMT+5)
End: Thu, Nov 10 2011 03:38:14PM (GMT+5)
Duration: 1:11:39
Summary:
Hardware ID: RGZD490
Sample Size: 200
Sample Rate: 1.000 trials/second (avg)
Trial Count: 4300
Account: NO_ACCOUNT_NAME_SPECIFIED
Z-Score: 2.140829
Min Z: -2.350974
Max Z: 2.909771
Session: Madhyana savanam prepns
*Initial Segment
Cumulative Deviation
Trial Number (#)


MADHAYANA SAVANAM
Segment: Entire Session*
psyleron
www.psyleron.com
Module: fieldreg
Experiment: soma yaga
Start: Thu, Nov 10 2011 03:38:15PM (GMT+5)
End: Thu, Nov 10 2011 04:09:21PM (GMT+5)
Duration: 0:31:6
Summary:
Hardware ID: RGZD490
Sample Size: 200
Sample Rate: 1.001 trials/second (avg)
Trial Count: 1867
Account: NO_ACCOUNT_NAME_SPECIFIED
Z-Score: -1.980145
Min Z: -2.757396
Max Z: 0.323249
Session: MADHAYANA SAVANAM
*Initial Segment
Cumulative Deviation
Trial Number (#)


localites pradakshina
Segment: Entire Session*
psyleron
www.psyleron.com
Module: fieldreg
Experiment: soma yaga
Start: Thu, Nov 10 2011 01:52:03PM (GMT+5)
End: Thu, Nov 10 2011 02:26:34PM (GMT+5)
Duration: 0:34:31
Summary:
Hardware ID: RGZD490
Sample Size: 200
Sample Rate: 1.000 trials/second (avg)
Trial Count: 2072
Account: NO_ACCOUNT_NAME_SPECIFIED
Z-Score: -2.047413
Min Z: -2.843872
Max Z: 1.883122
Session: localites pradakshina
*Initial Segment
Cumulative Deviation
Trial Number (#)


FIRE TO ROOF TOP TS
Segment: Entire Session*
psyleron
www.psyleron.com
Module: fieldreg
Experiment: soma yaga
Start: Thu, Nov 10 2011 07:45:17PM (GMT+5)
End: Thu, Nov 10 2011 08:18:04PM (GMT+5)
Duration: 0:32:47
Summary:
Hardware ID: RGZD490
Sample Size: 200
Sample Rate: 1.001 trials/second (avg)
Trial Count: 1968
Account: NO_ACCOUNT_NAME_SPECIFIED
Z-Score: -1.711893
Min Z: -2.302803
Max Z: 1.043552
Session: FIRE TO ROOF TOP TS
*Initial Segment
Cumulative Deviation
Trial Number (#)


fire in mahavedi
Segment: Entire Session*
psyleron
www.psyleron.com
Module: fieldreg
Experiment: soma yaga
Start: Thu, Nov 10 2011 12:17:02PM (GMT+5)
End: Thu, Nov 10 2011 12:30:51PM (GMT+5)
Duration: 0:13:49
Summary:
Hardware ID: RGZD490
Sample Size: 200
Sample Rate: 1.001 trials/second (avg)
Trial Count: 830
Account: NO_ACCOUNT_NAME_SPECIFIED
Z-Score: 2.498583
Min Z: -1.833576
Max Z: 3.090763
Session: fire in mahavedi
*Initial Segment
Cumulative Deviation
Trial Number (#)

7.2.6Day6

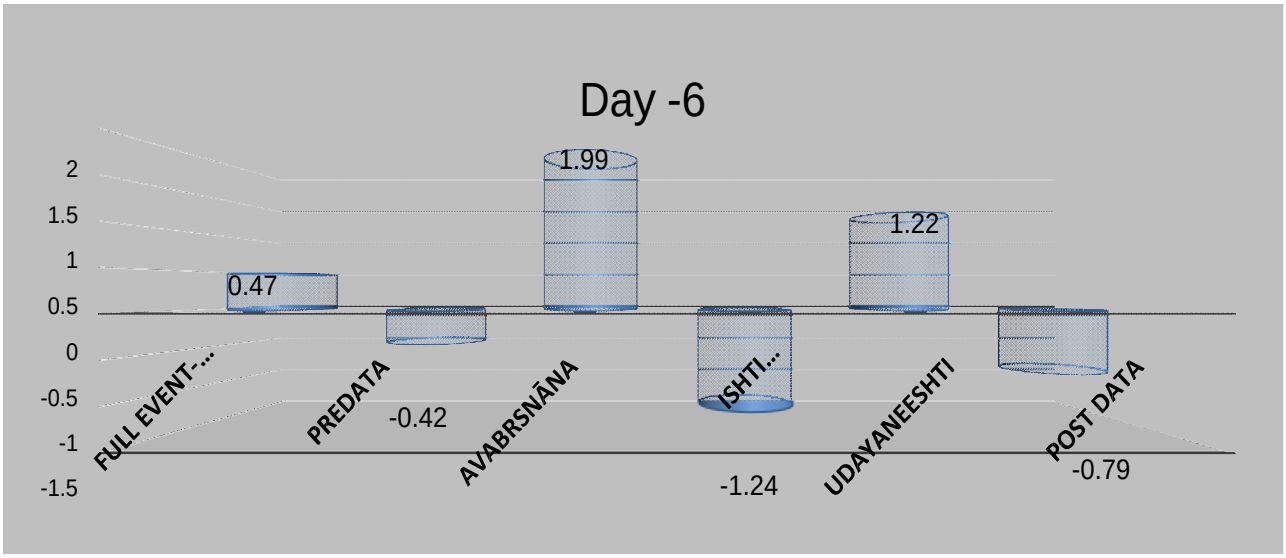
Table.17. Schedule of Day6 activities in *Agniṣṭoma Somayajña* and REG event data for each *Yajña* segment.

	Day6				
	N	∑Z (For reference)	Z_c	P	Es
Full Event-Day 6	**25951**	**76.3675**	**0.47**	**0.64**	**0.00**
Predata	3881	-26.446	-0.42	0.67	-0.01
Avabhrta Snāna	**6395**	**159.382**	**1.99**	**0.05****	**0.02**
iṣṭi preparations	3476	-73.256	-1.24	0.21	-0.02
Udayanīya iṣṭi	4826	84.7114	1.22	0.22	0.02
Post data	7373	-68.024	-0.79	0.43	-0.01

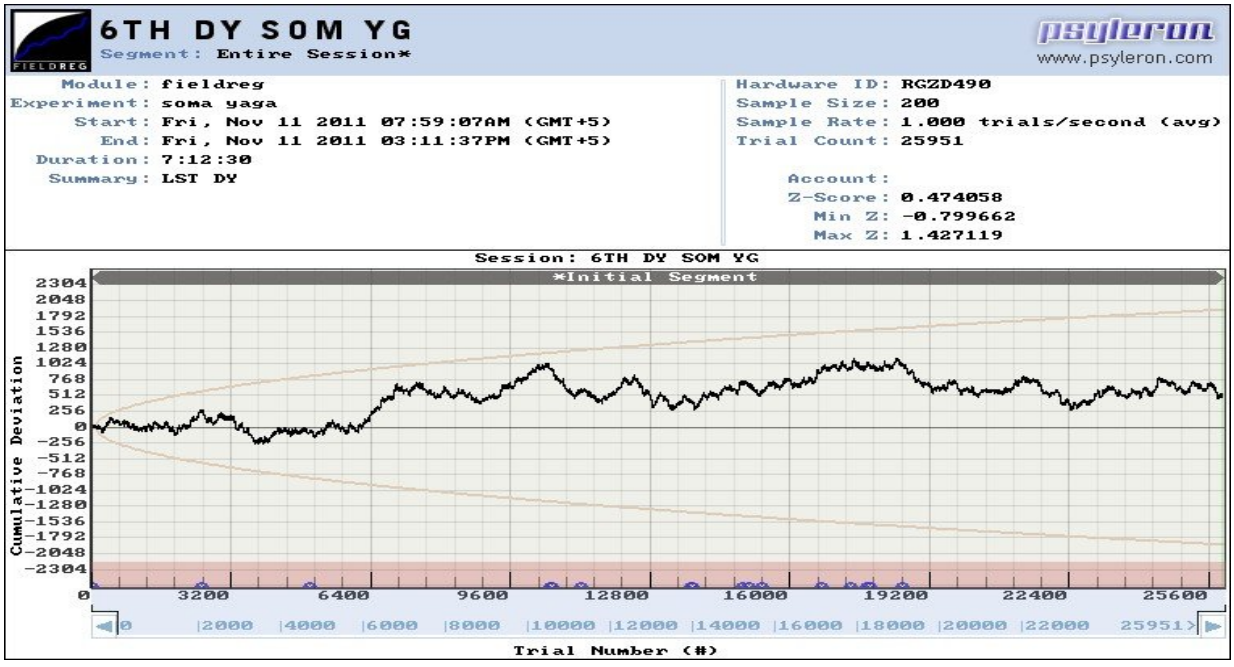
The time-stamped epochs, their respective trial counts and statistics are presented in the tables where N = number of REG events, Zc= combined z-score, Es= effect size (zc/√N; equal to mean REG z), p =probability (2T) of Zc, ***significantat*P* <0.05,*trend at<0.1>0.05(2T).

The occurrence of significant REG deviations were observed during the periods of *Avabhrta Snāna* (Nevents=6395, Zc= 1.99*P* =0.05**).**The full event, pre and post events record no significant deviation**

Graph9: REG data corresponding to epochs of attentiveness in field settings of the Day 6 of *Agniṣṭoma SomaYajña*. Values >1.96 relates to the statistically significant anomalous deviations



Psyleron Graph 9: Day6



9. SIGNIFICANT DEVIATIONS DURING DAY 6 SOMAYAJÑA

CHAPTER8

DISCUSSIONS

CHAPTER 8

DISCUSSIONS

The present study attempted to test if sustained group attentiveness corresponded with unlikely REG scores. Data from the REG was segmented to correspond to each of the epochs which contained descriptive annotations of the surrounding activities underway. Results noted that certain events corresponded with significant deviation in the REG scores. In the present study Z scores > ±1.96 are considered to be statistically significant anomalous deviations.

8.1 STUDY I: *DASARĀ* EVENTS

8.1.1 Table 18: Summary of the *Dasarā* Events Result

***DASARĀ* EVENTS**	**Total Significant Deviations**	**Maximum Deviation**
YOGA PROGRAM	4 out of 19 events significant. In 13815 secs, total 4298 secs are significant	1966 secs of Acrobat yoga
DANCE PROGRAM	12 out of 28 events significant. In 49462 secs, total 4545 secs are significant	1232 secs of Lead Dancer performance
TORCH LIGHT PARADE	1 of 11 events significant, full event observed for REG trend. (out of 12990 secs,2413 secs are significant)	2413 secs of Torch light performances in Torch Light Parade program.

8.1.2 Comparison with Earlier Studies

Present results were generally in favor of the overall Field REG hypothesis. As expected, mundane events demonstrated non-significant Z scores (P>.05).The results indicate that groups and activities involved in *Dasarā* events display a higher degree of attention and emotions and tend to correlate with the statistically unusual anomalous deviation. Group situations impact the synchronized attention of the group in influencing the outcome of the REG (Nelson et al., 1996, 1998). The Inaugural activity involving an Invocation and lighting the lamp can be compared to the previous studies where a prayer segment of 2400secs recorded a significant deviation of Z score 3.037 similarly in this study for 1701 secs Z score deviation was 1.96 both reporting positive z score (Caswell et al., 2014).

Performing and viewing Dance brings joy and delight to the audience. The costume, music, synchronized movements could have kept the audience engaging in a focused attention (Scott Grafton, 2008) which could be the reason of anomalous deviations in the REG output. In the Earlier studies, musical events, have shown the ability to foster high degrees of Resonance among the Gathering (Korotkov et al., 1997; Rajagopalan & Nagendra, 2013). In this study lead dancer performances are significant; it could be that individuals have the potential of psycho kinesis or the possibility to influence the instrument. Fast themed dances, Story, drama-oriented dances has shown a high degree of subjective resonance within the group hence a display anomalous segments of Field REG response is observed with significant deviations of Z score > 1.96 in various performances of Dance which is similar to the present study (Rajagopalan & Nagendra, 2013).

In a study of various types of venues for Field REG setup, a strong indication of anomalous deviation was observed in theatrical and musical venues deeply engaging the audience (p=0.007) and similarly in this study sustained attention is observed in the torch light parade program with Z score of 2.28 giving a strong indication of theatrical, musical venues and Charismatic events keeping the audiences deeply engaged (Nelson et al., 1998). The applauding sessions of the crowds indicates the crowd involvement to the events activity and influencing the REG significantly with Z score of 2.94(Caswell et al., 2014) and similar such Z scores > 1.96 are found during different activities of the selected *Dasarā* Events indicating the crowd involvement.

Further in this study an attempt is made to understand the *Guna* prevalence (the mood/theme) of a certain activity and the REG output. The *Guna* prevalence can be inferable with REG output.
In the earlier studies, different types of emotion were shown to influence REG differently; a downward shift was observed during periods of fear, anxiety and sorrow, and an upward shift was observed during periods of anger (Blasband, 2000). This research was carried out during Reichian bio psychiatric therapy sessions involving a therapist and the patient.

In the present study*, Sattva* is correlated with pleasantness, moderation, goodness etc. *Rajas* is correlated with thrill, excitement, high energy. *Tamas* is correlated with dullness, inactivity, inertia etc. Positive joyful experiences by audience due to lecture on Lord Viśnu and Śiva spooked sloka songs melodiously and explained aesthetically by the lecturer recorded an upward shift. A critical analysis of the Hindu religion practiced in the past and neglected in the present; this talk was observed for a downward shift. The reasons stated for this result is right brain

activation for upward shift/ positive Z scores and left brain dominant for downward shift /negative Z scores (Harisha & Nagendra, 2013).

Slow, calm style dances has been observed for a downward shift as compared to Fast themed story-drama oriented dance sequences to a significant upward shifts (Rajagopalan & Nagendra, 2013). Action, exciting scenes from a movie recorded for highest activity (*Rajas*) rating (Z score of 3.07, 3.43, and 2.90) with upward shifts. The least activity ratings Control data (*Tamas*) was recorded with Z score of -3.44 with downward shifts and *Homa* activities (Z score=-3.90, -2.76, 2.40,) Mythological Drama scenes (Z score= -2.17) was recorded for moderate activity ratings(mixture of *Rajas* & *Sattva*) with downward shifts (Rao & Nagendra, 2013).

The study 1 concludes stating that Dasara festivity is full of Joyful experiences, thrills, excitements indicating more *Rajasic* nature and the results also correlate with this, as out of 19 significant deviations from 15 were observed with upward shifts and 4 for downward shifts indicating selected activities during the Mysore Dasara program were predominantly *Rajasic* in Nature.

This Classification can help in encouraging future REG studies to understand the REG`s non randomness behavior and it`s direction of deviation in relation to *Gunas*. Further Studies can also observe the different emotions involved in the REG studies (Rao & Nagendra, 2013).

Table 19: the Summary of the *Dasarā* events with respect to the nature of activity, corresponding Gunas and the obtained REG Parabolas

***DASARĀ* EVENTS**		**Upper/ Positive Parabola**			**Lower/ Negative Parabola**			
	Duration in secs	**Activity with Sig Z scores**	**Nature of Activity**	**Guna**	**Duration in secs**	**Activity with Sig Z scores**	**Nature of Activity**	**Guna**
YOGA PROGRAM	1701	Inauguration (1.96)	lighting lamp, Prayer	*Sattva*	1966	Acrobat Yoga (-2.36)	Risky postures, jumps involved	*Rajas*
	473	Guests arrival (2.39)	welcoming Guests	*Rajas*	158	Marathon(-2.15)	Running	*Rajas*
DANCE PROGRAM	117 secs 41secs	Musical Band (2.29, 1.83)	a welcoming music during the start of the event	*Rajas*	730	Group Dance performances(-2.63)	mixed emotion performances from a group	*Rajas*
	Total 2513 secs	All lead Dancers Performances ((2.19,2.18,2.29,2.37)	thrill watching famous dancers solo performances	*Rajas*				
	564	crowd chatting(2.23)	Excitement filled conversations	*Rajas*				
	167	missing boy announcement(2.56),	sad news	*Tamas*				
	211	felicitation for Dancer(2.51)	gratitude for the dancers performance	*Sattva*				
	64, 188	war scenes (2.39) , magical tricks(2.24),	dramatic war scenes of good winning over evil, humor involved magical tricks in the dance performances	*Rajas*				
TORCH LIGHT PARADE	12990, 2413	Torch light Full event (1.90) and Torch light parade performances (2.28)	Showcase of military capability of ruling King. The event Instills Confidence in people	*Rajas*	773	Guests Arrival (Trend)(-1.76)	arrival of the minister in the mid of the performances	*Rajas*

8.1.3 Possible Mechanisms

The Yoga program was attended by the exponents of the Yoga field who witnessed the mass *Suryanamaskara* practice of about 200 participants. Demonstrations of advance yoga techniques and acrobat yoga were the highlight of this event. This event had a focused theme of popularizing Yoga. As the event proceeded there was a significant deviation observed when the Guests arrived. This shows that, the individual attention can become a collective attention as soon as the guests arrive. The marathon was not the part of Yoga *Dasarā* but a passing by activity showed that a distraction during an event can encourage a synchronized attention from the Yoga program participants, as they passed through them. The Inauguration involved with Invocation prayer and lighting the Inaugural lamp indicates that the prayers, performing *pūjā*, synchronizes the thought patterns which influences the output on the REG. The young kids spell bound performances of Acrobat yoga engages the audience in an intense focused attention and this could have been the possible reason for the significant anomalous deviations.

Bharatanäöya çästra, an Indian dance is an act of perfect symmetry, performitivity & a decorative costuming which allows a free flow and connection between poses and movements, the similarity that can be seen in the *Vinyasa* from of *Yoga*. It is a powerful media in carrying the spiritual theme to the common man (Sikand, 2016).

In relation to the current study, Dance & Yoga principles play a similar role in terms of *Dhārana, Dhyāna & Samādhi.* In Yoga, *Dhārana* is transformed into *Dhyāna* when the activities, which are confined within a permissible frame work, are made to fix on the object of meditation without any fluctuation then the thought waves become identical. The purpose of the

concentration is to achieve oneness between the mind of person who is meditating and the object of meditation. .

In a performance, the sentiments or emotions (*rasas*) that are required to be depicted are not continuous and stable, but they keep on changing within a permissible and visualized framework. Hence, the actor while portraying a character on the stage is not to be strictly considered to have entered entirely into a state of *Dhyāna.* He is ideally expected to shift between different states of *Dhārana* (to personify the character as a whole and not any one of its characteristics), *Dhyāna* (activity which is unwavering) and *Samādhi* (actor remaining for a considerable time through intense involvement, amounting to a state of dissolution). This effect is on a Performer (individual aspect), but when we look at the impact of dance performances in spectator aspects (Collective effect), it is the mental state on the part of the actor/dancer, the spectator is carried into deeper ineffable experience wherein he begins to identify himself with the character as if there appears no difference between him and the character. From the spectator's perspective: The actor is like the object of meditation for the spectator. The spectator does not identify the actor as different from the character on hand, nor does the spectator visualize the actor as someone mimicking the character. The actor is the character personified in its entirety (Doraswamy).

Dancers transcend the body & convey the essence of moments, the perfect combination of *drshti* & *darsan.* The Dancer through their performances evokes a response from the viewer; a transcendental state is attained in both the performer & the viewer where the *rasa* becomes a state of consciousness akin to *bliss* or *Ananda*. *Rasa* is all about the human state of mind. In a Dance the *Rasa* is a mental, bodily, emotional engagement with the character & the story. The

Nava rasas ñrngära (love and beauty), *vira* (heroism), käruëa (grief and compassion), *adbhuta* (wonder and curiosity), *häsya* (joy and mirth), *bhaya* (fear), *bhibatsa* (disgust), *roudra* (anger), and çänta (serenity and peace) is an emotion experienced by the audience created by the facial expression or the *Bhava* of the actor. Hence *Rasa* is not only experiential but also relational as it is dependent on the interaction of the performer (rasa) and the viewer (*rasika-employed to denote connoisseurs)* who appreciates & understands the performer's intentions. Rasa is also referred as *Prasādam*, a gesture of mutuality between the performer & the spectator(Sikand, 2016).

The performer sequences these *rasa* and the associated *bhavas* in a way that it awakens the mind when it is drowsy/ sleepy (*laya)* to a calm state and when it gets random (vikñipta), the mind goes to the state of uncontrolled speed, is brought to a phase of softness and it experiences serene, peace harmony, *bliss* which may lead to the state of *Samādhi.*

Nātyashāstra an unification of all arts is an extraction from *Vedas* and according to the *Bharata Muni* it`s plays should lead to intellectual and spiritual development of the spectators apart from providing them entertainment. (Joshi, 2005). Indian dance is decorative costuming, and though in this, no performer dances the same way depicting; *'näöya bhinnaruceù janasya'* but still it being an act of performitivity (Sikand, 2016) and depicting the emotions known to the world can please everyone in this world who have different tastes **"***bahudhä'pi eka à samärädhanam*"**.**

The emotions or rasas demonstrated in the Dance form gives life different hues, shades and colours and it is not surprising that it tries to present to the viewer a slice of human life and

focuses on these *rasas* or emotions inorder to appeal to the audience. The exposition on rasas characterize life as well as art. *Rasa* encompasses not just the emotion but the various things that cause that emotion.

Hence Dance beyond entertainment aims to realize reality and experience liberation and growth of righteousness as man, through beauty and delight. It is a form of communication that brings out the innermost feelings and at the same time depicts the cultural aspects of a civilization making Indian dances impersonal and traditional (Sudhakar, 1994). During Dasara, the most extravagant festival of Mysore, the city comes alive with the State Government showcasing these traditional skills of music and *dance shows,* cultural *performances* which appeals to every audience. Hence the Dasara festivities have become an integral part of the culture and life in Mysore. This could be the reason of anomalous deviations in the REG output.

8.2 STUDY II: *AGNIṢṬOMA SOMAYAJÑA*

8.2.1 Table 20: Summary of the *Agniṣṭoma SomaYajña* Results

SOMAYAJÑA	**Total Significant Deviations**	**Maximum Deviation**
Day 1	6 of 15 events significant In 43296 secs- 19536 secs significant	*Yajña Saṁkalpā (14458 secs)*,
Day 2	6 of 17 events significant In 47843 secs, 16379 secs significant	Predata 4526 secs
Day 3	7 of 18 events significant In 49682 secs 17629 secs significant	*4th Pravargya Subraḥmaṇya* and *Madhuparkam 5036 secs*
Day 4	7 of 18 events significant In 46070 secs, 20691 secs significant	*Agni Praṇāyaṇīyām, Agnishomiya Yajña* and *Audhambhari pūjā* 10913 secs
Day 5	12 of 23 events significant while 3 report Trend In 61137 secs, 33236 secs significant.	*Soma āhuti & Somarasā* taken by the priest during *Madhyānā Savanam* 5752 secs.
Day 6	In 25951 secs, total 6395 secs significant 1 of 5 events significant	*Avabhrta Snāna* 6395 secs

8.2.2 Comparison with Earlier studies

In *Agniṣṭoma Somayajña* On the 1st day *Yajña Saṁkalpā*, *prāyaṇīyā iṣṭi*, (initial gifts of *Soma* sacrifice), 2nd day *Āthiyeśthī,* (buying and hospitable reception of *Soma*), *Subraḥmaṇya 3rd and 4th day, Agniñomiya Yajña, Audhambhari pūjā* are significant.

The chief moments of *Soma* pressing for 3 times on the 5th day were significant which involved the production, singing of praise, recitation and libation of *Soma*, by *Adhvaryu* and his assistants wielding the stones on stalks against an animal hide while the 12 *stotras* of *Sāma Vedā* are chanted and 12 *sastras* of *Ṛgveda* are recited and on *6th day Avabhrta Snāna* was found to be significant.

Most of the other chief activities of *SomaYajña* has been significantly deviated with z scores >1.96 (Deussen, 1980; Puchalski, 2009). Comparing with earlier works, important rituals of *Āpthoryama Yajña* performed in Thrissur district , Kerala and in Bangalore was observed for significant deviation as measured by REG (Rawat & Nagendra, 2007) (Thakur, Nagendra, & Nagarathna, 2012). Similar Results are observed during the present study.

Significant deviations were observed during high flames from the *Mahāvedi* which indicates that high flames of fire can engage and keep the audiences attentions captive and it demonstrates that significant deviation from randomness during the period of its highest collective intensity ("XOR This: Burning Man Used to Scientifically Prove Magic," 2014). The high vibrations of the different rituals of *Soma* Pressing and its offerings to *Agni* and consumption of *Somarasā* involved in *Prāthah Savanam, Madhyānā Savanam* and *Tṛtīyā Savanam* were significant and

this may be due to the effect of *Somarasā,* a psychoactive drug, creating a euphoria feeling (Kochhar, 1996) when orally in taken. The medicinal efficacy makes the consumer awakened and alert (Dash, 1997), and stimulates the nervous system acting as a restorative and mild anesthetic agent (Frawley, 2012; Tyler et al., 2008).

Significant deviations during the periods of *Pravargya* is observed and this Ceremony of *SomaYajña* from *Taittriya AraNyaka* is an elaborate and repetitive ritual where the *Soma* is offered to the *ashvins* (HoubenJan, 1995). Similar significant results using REG is observed in Pravargya rituals of *Āpthoryama Yajña* (Rawat & Nagendra, 2007)(Thakur, Nagendra, & Nagarathna, 2012).

All the rituals performed in the *Yajña* is associated with a Vedic chant, the synchronized chants and relevant actions performed created an influence on the attention activity of the gathering promoting a focused attention. Earlier studies have already proved that Vedic chanting enhances memory and sustained attention. Repeated and continuous chanting influences and increases the attention level and calmness (Ghaligi, Nagendra, & Bhatt, 2006).

A feeling of resonating effect and an improved attention ability is achieved during a mantra recitation (Pradhan & Derle, 2012). *Bhajans* (Devotional session), Vedic chanting and in important rituals of *Āpthoryama Yajña,* REG was found to be significantly and anomalously deviated (Rawat & Nagendra, 2007; Recca et al., 2006; Tewani et al., 2008; Ghanshyam Singh Thakur et al., 2012a). Similar Results are observed during the present study.

In the Present study, interestingly different periods of Vedic chanting performed during all the days have shown significant deviations, Z score > 1.96. Researches in the Vedic Sciences and the field of Consciousness have shown the soothing stimulating effect created on human beings and animals due to the vibrations produced from chanting of mantras. The soothing effect is felt on the human mind, plant and animal life when the life-sustaining energies emanate from the cosmic energy center when mantras are chanted which vibrates and spreads energy waves in surrounding atmosphere while the oblations are offered (The Integral Science of *Yajña*, 1998). Most of the rituals in the *Yajña* along with the Vedic chantings seem to foster a high relative degree of resonance serving as a potential means of anomalies (Caswell, Gaona, Tessaro, et al., 2014).

The results of the segment during break time with Z score >1.96 on different days might suggest further avenues of REG exploration, Previous studies on sleep segment for a duration of 10 hrs with Z score of 1.79 (1 Tailed) has been significant while studies on DRT (Deep Relaxation Technique) in comparison to Supine rest reported no significant change (Thakur et al., 2009).

As reported in the previous studies the *Yajña* performances results in rainfall (Ramanathan, 1986) Similarly the performance of *Agniṣṭoma SomaYajña* also experienced changes in the climate as each *Yajña* day proceeded towards its completion there was rainfall consistently for 5 days post the *Yajña*. Though nothing is reported scientifically people reported voluntarily that they felt more positive visiting the *Yajñaśālā*. They illustrated their feelings, likingness towards the performance of the *Yajña* by involving themselves , bringing home made *prasādams*, flower

garlands, decorating the premises of the *Yajñaśālā*, serving *free prasādams* outside the *Yajñaśālā*, doing *pradakśinā* morning and evening and participating in the *Agnihotra vidhi*. The *Yajña* witnessed eminent personalities visiting the premises to seek the blessings indicating that procedures of the Spiritual rituals involving chanting of mantras, offerings in the fire can affect the general level of human consciousness in the people who attend the *Yajña* (Rawat & Nagendra, 2007).

No significant deviations were observed in any of the days in pre and post sessions (except Day 2 Predata), the reason could be people were not able to have any synchronized directed attention as there was no important activity taking place. Though many events helped in creating collective consciousness fields, each day performance as a whole could not show the same effect, the reason could be the mind of collective people at all times may not be the same.

Further the study attempts to understand the nature of activity and corresponds it to the *Sattva, Rajas* & *Tamas*. The feeling of reverence and devotion among the participants who attend the session out of free will and the performers of a Vedic ritual (*Yajña*) correlates to predominant *Sattva., Rajas* for thrills, excitement, energetic activities and inactivity periods, with least human interaction in the vicinity, which represents for dull environment. This correlates to predominant *Tamas* (Rao & Nagendra, 2013).

REG was significantly influenced for Agnihotra mantra duration (574 secs) (Thakur, , Nagendra & Nagarathna, 2009). REG was influenced for Apthoryama Yajña measured at a

distance(Rawat & Nagendra, 2007) and was observed on several occasions for its performances with Significant Upward shifts Thakur, Nagendra, & Nagarathna, 2012).

Positive joyful experiences by audience due to lecture on Lord Viśnu and Śiva spooked sloka songs melodiously and explained aesthetically by the lecturer recorded an upward shift. A critical analysis of the Hindu religion practiced in the past and neglected in the present, this talk was observed for a downward shift. The reasons stated for this result is right brain activation for upward shift/ positive Z scores and left brain dominant for downward shift /negative Z scores (Harisha & Nagendra, 2013)

Significant upward shifts (Excitement) observed during the episodes of *käliya mardanaà, Dhruv katha, Rukmini viväha, Nandotsvä,* and significant downward shifts (sadness, sorrow) during *Bhiñma* death, Lord *Kåñëä* death, *Gajendra mokñä*(Mehta & Nagendra, 2015).

Action, exciting scenes from a movie recorded for highest activity (*Rajas*) rating (Z score of 3.07, 3.43, and 2.90) with upward shifts. The least activity ratings Control data (*Tamas*) was recorded with Z score of -3.44 with downward shifts and *Homa* activities (Z score=-3.90, -2.76, 2.40,) Mythological Drama scenes (Z score= -2.17) was recorded for moderate activity ratings (mixture of *Rajas* & *Sattva*) with downward shifts (Vasudeva & Nagendra, 2013).

The study 2 concludes stating that *Yajña, Homa* and other Spiritual rituals are filled with reverence, serenity, pleasantness, surrender, *Bhakti* type of feelings , Hence it is predominantly *Sattva* in nature but during its performance, due to the high & low intonations of mantra

chanting, different fire rituals it is also *Rajasic* in nature and the results also correlate with this , as out of 39 significant deviations from 18 were observed with upward shifts and 21 for downward shifts indicating selected activities during the *Yajña* performance for moderate activity ratings(mixture of *Rajas* & *Sattva)* with downward shifts but overall predominantly having Sattva Nature.

This Classification encourages and explores the nature of activity inducing an intense collective participation, involvement that induces significant deviations in REG in relation to *Gunas* for future studies and to observe the different emotions involved in a Religious ritual, the nature of its activity and direction of the deviations in the REG studies.

Table 21: The Summary of the events of *SomaYajña* with respect to the nature of activity, corresponding Gunas and the obtained REG Parabolas								
SOMAYAJÑA		**Upper/ Positive Slopes**			**Lower/ Negative Slopes**			
	Duration in secs	**Activity with Sig Z scores**	**Nature of Activity**	**Guna**	**Duration in secs**	**Activity with Sig Z scores**	**Nature of Activity**	**Guna**
Day 1	1756	Devotional songs (2.11)	Bhajans played from the music system	*Sattva*	157	Preparations (-2.20)	preparations from the priest team	*Rajas*
		Vedic chanting (2.43)	chantings from the priests team in chorus	*Sattva*	14458	*Yajña* Saṁkalpā (-2.44)	Resolutions & commitments made before the proceedings of the *Yajña*	*Sattva*
					2844	Lunch break (-2.20),	Break for lunch	*Rajas*
					104	Fire in 3 kundas(-2.16)	lighting up the fires in the *Yajña* kundas	*Sattva*
Day 2	988	*prāyaṇīyā iṣṭi*(2.55)	offerings of caru (rice cooked in milk)	*Sattva*	4526	Predata(-2.19)	No activity period	*Tamas*
	2346	*Prathāmaḥ Pravargya (2.27)*	hot milk is boiled in Mahavirā pot, sāmans chanted by *Prastotā* and offerings to *Aśvinis*	*Sattva*	679	Break (-3.38)	Resting Break	*Tamas*
					2223	*Āthiyeśthī(-2.14)*	Welcoming *Soma* with offerings amidst hymns	*Sattva*
					5617	*Vedic chanting (-2.06)*	chantings from the priests team in chorus	*Sattva*
Day 3	3539	Vedic chanting (2)	chantings from the priests team in chorus	*Sattva*	1566	*Āhavaniyam(-1.99)*	Offerings	*Sattva*
	885	Break (1.99)	Break for food	*Rajas*	4492	*Vedi Pūjā(-2.32,-2.34)*	pūjā in a round altar	*Sattva*
	817	*Subraḥmaṇya*(2.13)	Chants to *Indrā*	*Sattva*	5036	*4th Pravargya Subraḥmaṇya* and *Madhuparkam*	offerings, chantings and offerings mixed with honey to priests team	*Sattva*
Day	1276	Vedic chantings	chantings from the priests	*Sattva*	1970,1212	Vedic chanting (-	chants & offerings	*Sattva*

4			team in chorus		secs, 2805,695 secs	2.14,-2.36), *Gharmodvāsanam vidi (-* 2.07),*Subraḥmaṇya*		
	1820 , 10913 secs	*cayana vidhé (2.24), Agni Praṇāyaṇīyām, Agniśomiya Yajña and Audhambhari pūjā (2.04)*	Offerings amidst chants	*Sattva*				
Day 5	1040,1503, 1088 secs	Vedic chanting (2.41,2.24.2.41),	chantings from the priests team in chorus	*Sattva*	2202 secs	Vedic chanting(-1.98)	chantings from the priests team in chorus	*Sattva*
	1297	*Soma* Pressing In *Tṛtīyā* Savanam (1.92) Trend	extraction of *Soma* juice amidst chants	*Sattva*	1834,	*Soma* Pressing (PS--2.11) *Tṛtīyā* Savanam	extraction of *Soma* juice amidst chants	*Sattva*
	902	high fire in Vedi (2.33)	offerings in Vedi altar with chantings	*Sattva*	1968	high fire in Vedi in *Tṛtīyā* savanam (1.72)	offerings in Vedi altar with chantings	*Sattva*
	2540 secs	*Soma* āhuti &*Soma*rasā taken by the priest (TS =2)	Offerings of *Soma* in Vedi and Consuming the remaining *Soma* by the priests team with chants	*Sattva*	3109, 5752	*Somaāhuti* & *Soma*rasā taken by the priest (-2.23,-2.35) in PS & MS respectively	Offerings of *Soma* in Vedi and Consuming the remaining *Soma* by the priests team with chants	*Sattva*
	1762	Break (2.02)	for food & tea	*Rajas*	1867	*Madhyānā Savanam* (-1.91)	*Soma* offering rituals	*Sattva*
	4300	*Madhyānā Savanam* preparation (2.16)	preparations from the priest team for *Soma* offerings	*Sattva*	2072	localities in *pradakñiëä*(-2.06),	Doing *pradakñiëä* of the *Yajña*shala with prayers in mind	*Sattva*
Day 6	6395	*Avabhrta Snāna(*1.99)	ceremonial bath on the conclusion day	*Sattva*				

8.2.3 Possible Mechanisms

A *Yajña* procedure is an involvement of creativity, shared emotions, strong intentions and interactions with the creation or the cosmic energy. These ritualistic procedures and atmosphere creates a coherent thought patterns resulting a Resonance in the field. The aim of *Yajña* is to use that potential to launch the consciousness into the unknown dimensions for further discoveries.

According to the *Bhagavad Gitā, Yajña* is not just a ritual where *pūjā* items are consigned to the flames and dedicated to God but a very powerful tool for inspiring and enlightening human consciousness. During *Yajña*, the simplicity and richness of the event, is a surcharged energy and the feeling of unity that is generated creates a shift in the awareness. We become aware of the present moment and see the divine within everything.

As the first mantra of the *Iśavāsya Upaniśad* found in the fortieth chapter of the *Yajur Vedā, Yajña* is a vision which develops in spiritual life. *Yajña* is an esoteric yoga and are a part and parcel of *ätmasa à yama yoga.* Rituals performed in group, in sacred sites engages their participants to be in a meditative state, being part of the chantings directly and indirectly honoring the ancient traditions and attempting in creating a spiritual connection with the site and with the gatherings giving an impression of mystical ambience. These circumstances favor to foster a group resonance. The overall performance of the *Yajña* corresponds to soft emotions such as devotion, reverence etc.